

Impaired Waters Monitoring and Implementation Plan 2022-2027

The Georgia Environmental Protection Division (EPD) is responsible for establishing water quality standards for waterbodies in the state. Consistent with the U.S. Clean Water Act, the state collects water quality sampling data and identifies streams that do not meet these water quality standards. The list, published bi-annually, of waters that do not meet state standards is referred to as the 303(d) list of impaired waters (after the section in the Clean Water Act where the state requirement is identified).

The City of Dunwoody has prepared this Monitoring and Implementation Plan (MIP) following Part 4.4.2 of the City's General NPDES Stormwater Permit No. GAG610000 for Phase II MS4's. Two streams located in the City are listed as impaired on the 2022 303(d) list, approved by the USEPA on April 22, 2022. In the 2022 list of impaired waters, two streams in Dunwoody remain on the list of impaired waters: Marsh Creek and Nancy Creek.

Table 1 includes information from the 2022 303(d) list regarding the specific Reach ID in Dunwoody that is impaired, along with the use not being supported, the cause and source of the impairment, and other pertinent details from the 303(d) list. Table 2 provides the data provider codes and Table 3 includes the reference for the Assessment Category codes.

Table 1 – 2022 303(d) Listed Streams (Dunwoody, Georgia)

| Assessment Unit ID | River Basin | Assessment Unit Name | Assessment Unit Location | Designated Uses | Assessment Category | Decision Notes | Cause | Source | DATA PROVIDERS |
|--------------------|---------------|---|--|-----------------|---------------------|--|-----------|--------|----------------|
| GAR031300011102 | Chattahoochee | Marsh Creek <i>(aka March Creek)</i> | Headwaters to Chattahoochee River | Fishing | 4a, 5 | TMDL completed FC 2003 (revised 2008). EPD needs to collect more data before a determination is made as to whether pH is meeting water quality criteria. | Bio F, FC | UR | 1,4,17 |
| GAR031300011203 | Chattahoochee | Nancy Creek | Headwaters to Peachtree Creek, Atlanta | Fishing | 4a | TMDL completed FC 2003 (revised 2008). TMDL completed Bio F 2008. | Bio F, FC | UR | 1,10,4, 56 |

Table 2 – Data Sources

| | |
|----|--|
| 1 | DNR-EPD, Watershed Planning & Monitoring Program |
| 4 | DNR, Wildlife Resources Division |
| 10 | U.S. Geological Survey |
| 17 | Fulton County |
| 56 | DNR-EPD, Hazardous Waste Mgmt. Branch |

Table 3 – Assessment Categories

| | |
|----|--|
| 4a | Data indicate that at least one designated use is not being supported, but TMDL(s) have been completed for the parameter(s) that are causing a water not to meet its use(s). |
| 5 | Data indicate that at least one designated use is not being supported and TMDL(s) need to be completed for one or more pollutants. Waters in Category 5 make up the 303(d) list. |

Sample Locations

There are 2 monitoring sites for the impaired portion of Nancy Creek because the segment exits the City limits twice. A single sampling location is used to monitor the impaired segment of Marsh Creek. Figure 1 shows the impaired segments of Marsh Creek and Nancy Creek, the 3 sampling locations, and the outfalls located 1 linear mile upstream of the listed waters. Appendix B.0 includes larger versions of all maps associated with the City's MIP, including maps of the individual basins and their associated outfalls. Table 4 matches each of the 3 locations with the Site Number and associated Basin ID, both of which are used frequently to refer to the different locations in lab reports and in data analysis.

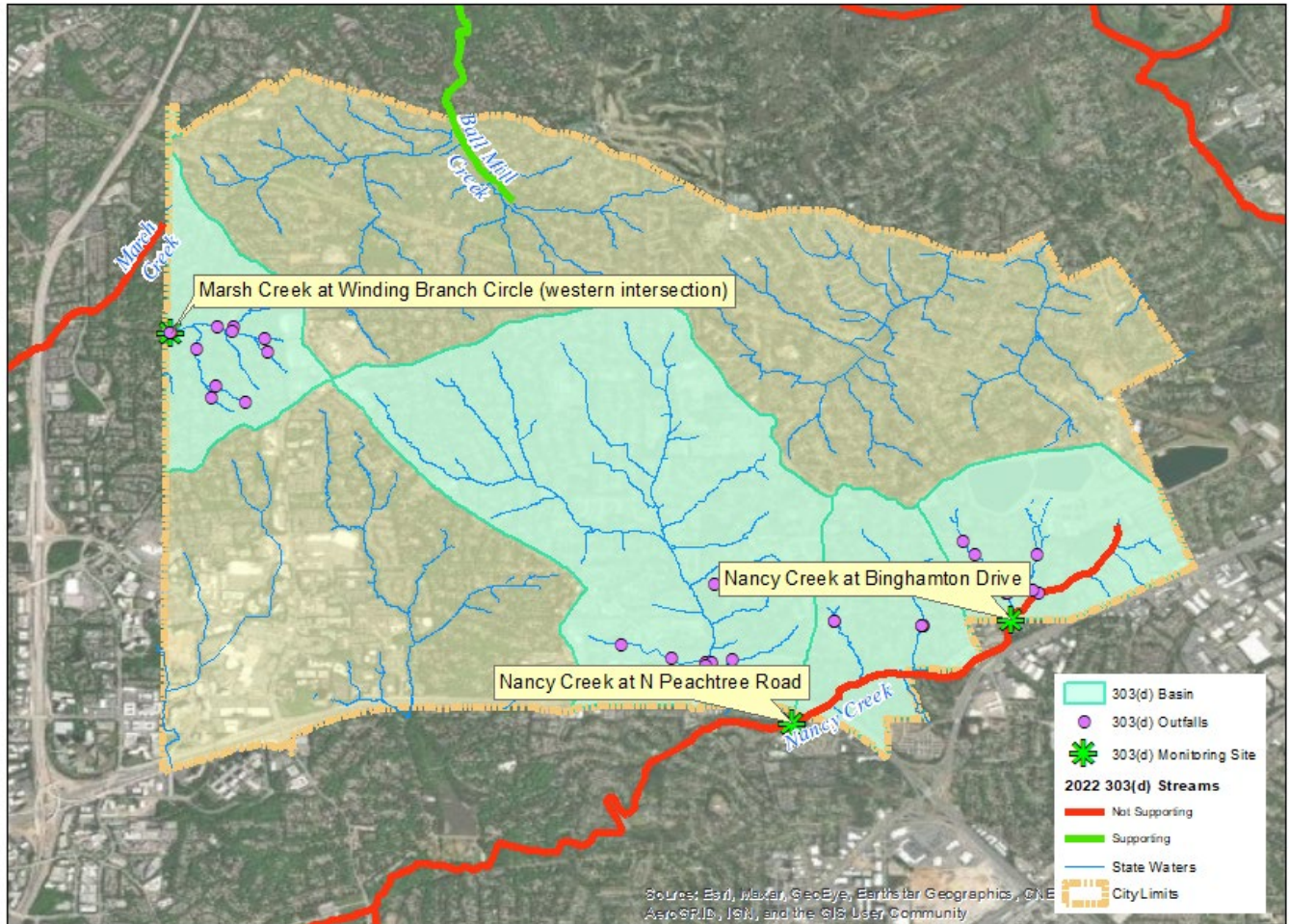


Figure 1 – Sampling Locations and Outfalls (City of Dunwoody, MIP)

Table 4 – Site Name and Location Reference

| Site # | Basin | Basin ID | Location |
|--------|----------------|----------|-----------------------|
| 2 | Marsh Creek | MC | Winding Branch Circle |
| 3 | Nancy Creek #1 | NC1 | N Peachtree Road |
| 4 | Nancy Creek #2 | NC2 | Binghamton Drive |

Pollutants of Concern

Bacteria

On August 31, 2022, US EPA Region IV approved the updates to its Water Quality Standards after being adopted by the Georgia DNR Board on January 28, 2022. The updated standards replaced fecal coliform with E. coli as the indicator organism for waters listed as impaired for bacteria. The City's third quarter sampling of 2022 began on August 10, 2022, before the updated standards were approved, the City continued sampling for fecal coliform for the remainder of that quarter. The City began sampling for E. coli in place of fecal coliform in November 2022.

When sampling for E. coli, the City follows procedures for bacteriological sampling of waters with fishing identified as the unsupported designated use as outlined in *391-3-6-.03 Water Use Classifications and Water Quality Standards* (Appendix B.1).

At each of the 3 locations, a minimum of 4 geometric means for E. coli will be derived annually. At least two geometric means will be obtained during the summer months (May-October) of the reporting year and at least two will be obtained in the winter months (January-April or November-December) of the same year. To obtain a geometric mean for a single site, 4 instream samples will be collected at that site within a selected 30-day period, no less than 24 hours apart.

Total Suspended Solids (TSS)

The City will collect an instream sample for Total Suspended Solids (TSS) at least once annually from the Marsh Creek sampling location and from each of the two Nancy Creek sampling locations.

Any additional sampling performed by the City will be done in order to maintain the City's compliance with the Metropolitan North Georgia Water Planning District's Standards and Methodologies and will follow the same procedures. The results of any additional sampling will be included in the City's narrative analysis and Annual Reports to the EPD.

Data Assessment

The City of Dunwoody is conducting this sampling for its impaired streams over a 5-year period per its MS4 Permit requirements. Each year, the sampling schedule is based upon the standard method for each pollutant of concern as discussed in the previous section.

For each annual report, the City will analyze the collected E. coli and TSS water quality data in separate spreadsheets. Line graphs will be generated using the geometric means for the E. coli sampling results. The analysis of the TSS results will consist of a table of that year's results for each monitoring location. Charts may also be used when beneficial to the analysis of the TSS results.

Known sanitary sewer overflows will be cited in the analysis of the E. coli results so that any correlation can be demonstrated. Precipitation data from local USGS stations may also be used during analysis. Sampling results from previous years will also be included so trends in water quality may be identified.

Proposed Best Management Practices (BMPs)

The City of Dunwoody views the following activities as the best strategies for protecting local water quality. As more monitoring is performed, additional BMPs or other Watershed Improvement Projects may be added based on the results of that data.

Public Education and Outreach

Educating the public about preventing pollution of local streams and providing ways to participate helps to foster mindfulness and ownership among citizens. One of the primary sources of pollution in our streams is non-point source pollution. Most people do not realize that their daily activities, even as minor and common as blowing leaves into the street, contribute to the pollution of streams. The public also may not know that when it rains, pollutants that have been spilled or placed on the ground are washed into drains directly connected to local streams.

The City places educational materials (*BMP A-1 and BMP C-4*) from organizations such as the Clean Water Campaign and the Metropolitan North Georgia Water Planning District (MNGWPD) in the lobby of City Hall in order to provide information to residents, contractors and local business owners about how they can avoid being a contributor to runoff pollution. The City also hosts a storm drain marking event at least once a year (*BMP B-1*). These markers are a useful way to highlight the purpose of the storm sewer system and to let the public know that anything down the drain ends up in the streams.

Continued Illicit Discharge Detection and Elimination

As part of Dunwoody's MS4 permit, the City performs inspections of its MS4 and municipal facilities on a rotating basis, scheduled by geographical area. Through the ongoing asset management program and MS4 outfall inspection program are looking for areas where illicit discharges may be occurring to the stormwater system. These will be addressed as found by the City during these routine inspections.

Continued Implementation of Ordinances for new developments and redevelopments

The City has adopted the latest model ordinance for Erosion and Sediment Control and has a Litter Control ordinance to address construction site waste. The ordinances guide the plan review process as well as inspections during development and redevelopment activities. Working closely with the development community to prevent excess sediment from construction sites from entering local streams helps to limit the sediment impact to fish habitat. Ensuring new developments have the proper post-development stormwater controls that mitigate peak flows help in reducing bank erosion commonly found in suburban and urban stream systems.

Evaluating BMP Effectiveness

Overall, the proposed BMPs associated with the City's Impaired Waters Monitoring and Implementation Plan will be considered effective if the monitoring data shows water quality remaining the same or improving. Outlined below are the reasons why each proposed BMP is anticipated to be effective in protecting water quality. In the event that monitoring data indicates a degradation of water quality over time, then the City will revise its existing BMPs or propose new BMPs in order to address the decline.

Public Education and Outreach

BMP A-1 (Pamphlet Distribution) and BMP C-4 (IDDE Education): Distribution of educational material will reflect public awareness of the problems that the materials identify.

BMP B-1 (Storm Drain Marker Program): Community participation in this activity will reflect increased public awareness about proper use of the MS4.

Illicit Discharge Detection and Elimination

BMP C-3 (IDDE Plan): Detection and removal of illegal connections and illicit discharges discovered in the screening process will reflect the effectiveness of the BMP. Finding no illicit discharges will also reflect the effectiveness of the BMP and program.

BMP C-5 (Complaint Response IDDE): The effectiveness of the BMP will be reflected through the verification of illegal connections and/or illicit discharges from the complaints received.

BMP F-2 (MS4 Inspection Program): Inspections of the MS4 structures results in the proper operation of the MS4 system, reducing the amount of pollution to the stormwater system. The completion of scheduled inspections of the MS4 per the Stormwater Management Program will demonstrate the effectiveness of this BMP.

Implementation of Ordinances

BMP D-1 (E&SC Ordinance and Litter Ordinance): The City's ability to enforce regulations regarding site-generated waste will demonstrate this BMP's effectiveness.

BMP D-3 (Inspection Program): Conducting inspections on construction sites will reflect the effectiveness of this BMP since these limit the number of permit violations.