

City of Dunwoody, Georgia

Monitoring and Implementation Plan 2025 Annual Report – Narrative Analysis

Data Assessment

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. In adherence to the updated bacteria criteria, Dunwoody began sampling for E. coli in place of fecal coliform starting the fourth quarter of the 2022 reporting period.

Results from past fecal coliform tests and the E. coli samples are logged in spreadsheets, with the quarterly geometric means calculated for each site. Graphs and tables are generated from the logged data. The results from 2019 through 2025 are summarized in the following pages to support the findings in the analysis. Complete documentation is provided in the City 2025 MS4 Annual Report attachments.

The City also uses sanitary sewer overflow (SSO) reports and precipitation data to complete its assessment of the water quality results. SSO reports are received directly from DeKalb County Watershed Management (DWM) when an SSO occurs within Dunwoody’s city limits. To account for SSO’s that occur outside of DWM’s jurisdiction, but within the same impaired watersheds, sewage spill reports are also obtained from EPD’s documents webpage (<https://epd.georgia.gov/forms-permits/eservices/online-resources/documents>). **Figure 1** shows the adjoining cities (Doraville, Chamblee and Peachtree Corners) that contribute drainage to the Nancy Creek sampling sites in Dunwoody.

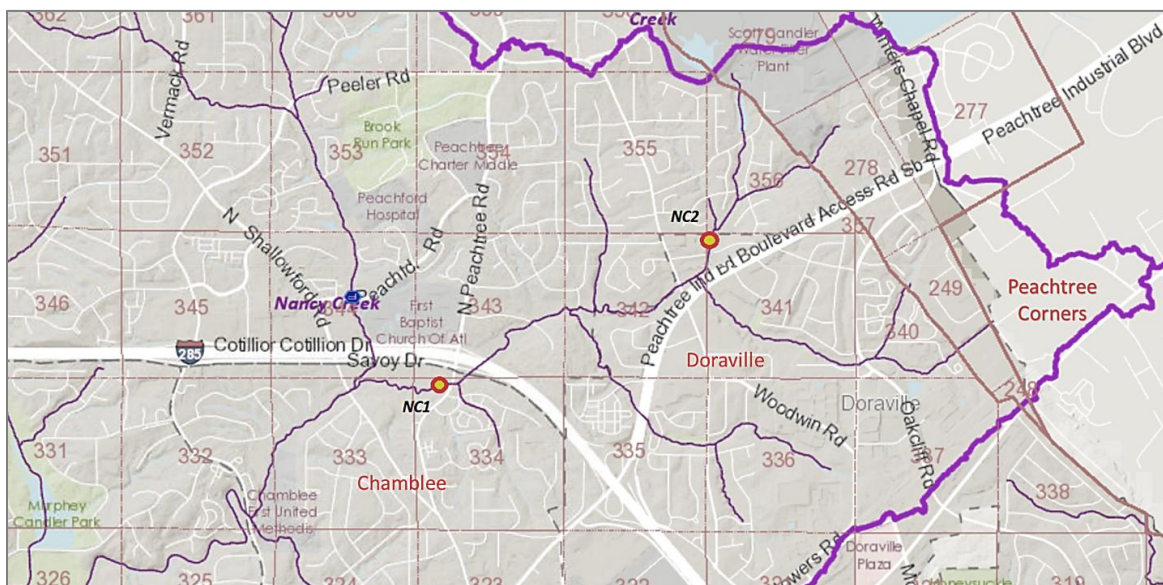


Figure 1 - DeKalb County Basins Map, Nancy Creek Watershed Contributing Municipalities; City of Dunwoody IWP Sampling Sites “NC1” and “NC2”.

In the absence of correlating SSO reports, rain data can also be useful in determining the cause of elevated bacteria levels. Higher bacteria loads are commonly found in samples that are taken during rainy weather due to unreported, acute overflows caused by reduced capacity within the sanitary sewer system as it attempts to accommodate excessive infiltration from surrounding, saturated soils. When using rain data, results for different sample sites can be compared to demonstrate if elevated bacteria counts may be caused by general environmental conditions (i.e., wet weather). If results are not elevated across all sites during the wet weather, there is likely a localized issue to be investigated. USGS Site #02336340 (NANCY CREEK AT JOHNSON FERRY RD, AT CHAMBLEE, GA) is used as the primary source of rain data in the analysis. USGS Site #02335350 (CROOKED CREEK NEAR NORCROSS, GA) is used as a second source of data, which can help establish and verify weather patterns in the area. **Figure 2** shows the locations of the USGS sites as well as the 3 sample sites in Dunwoody. Tables of the collected rain data and the E. coli results are provided in the results section. Up until 2023, the data trend for Dunwoody indicated increases in bacteria levels could be expected after the area received 0.5 inches or more of rain over a 24-hour period.

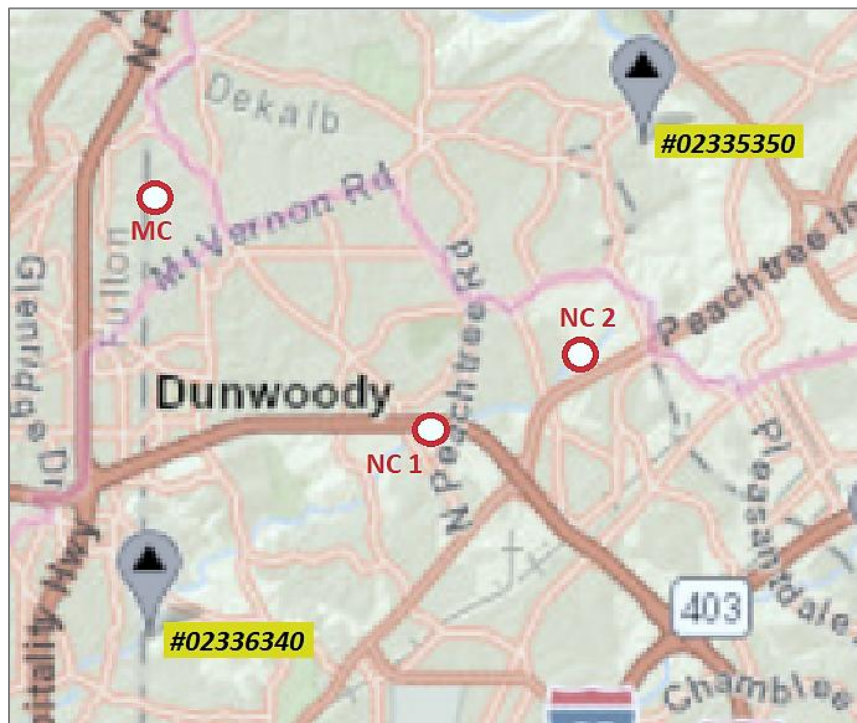


Figure 2 - USGS - NWIS: Mapper <https://maps.waterdata.usgs.gov/mapper/index.html>

In 2025, DWM notified the City of 2 separate SSOs, with the first occurring on January 8, 2025, in Peachtree Corners, and the second on September 15, 2025, in Dunwoody. Two other SSOs within Dunwoody city limits were identified from EPD's sewage spill reports. Consistent with previous years, documented SSOs continued in the Nancy Creek watershed, specifically at sites located at Peachtree Industrial Boulevard. The sanitary sewer network in this area remains problematic, likely leading to persistently high bacteria conditions within Nancy Creek.

Documented SSOs did not correspond with instances of elevated E. coli levels in the 2025 samples. Wet weather likely contributed to higher levels of E. coli detected during the sampling event on October 28, 2025. Other high E. coli level instances are likely due localized issues. Overall, geometric means calculated in 2025 were lower than the previous year.

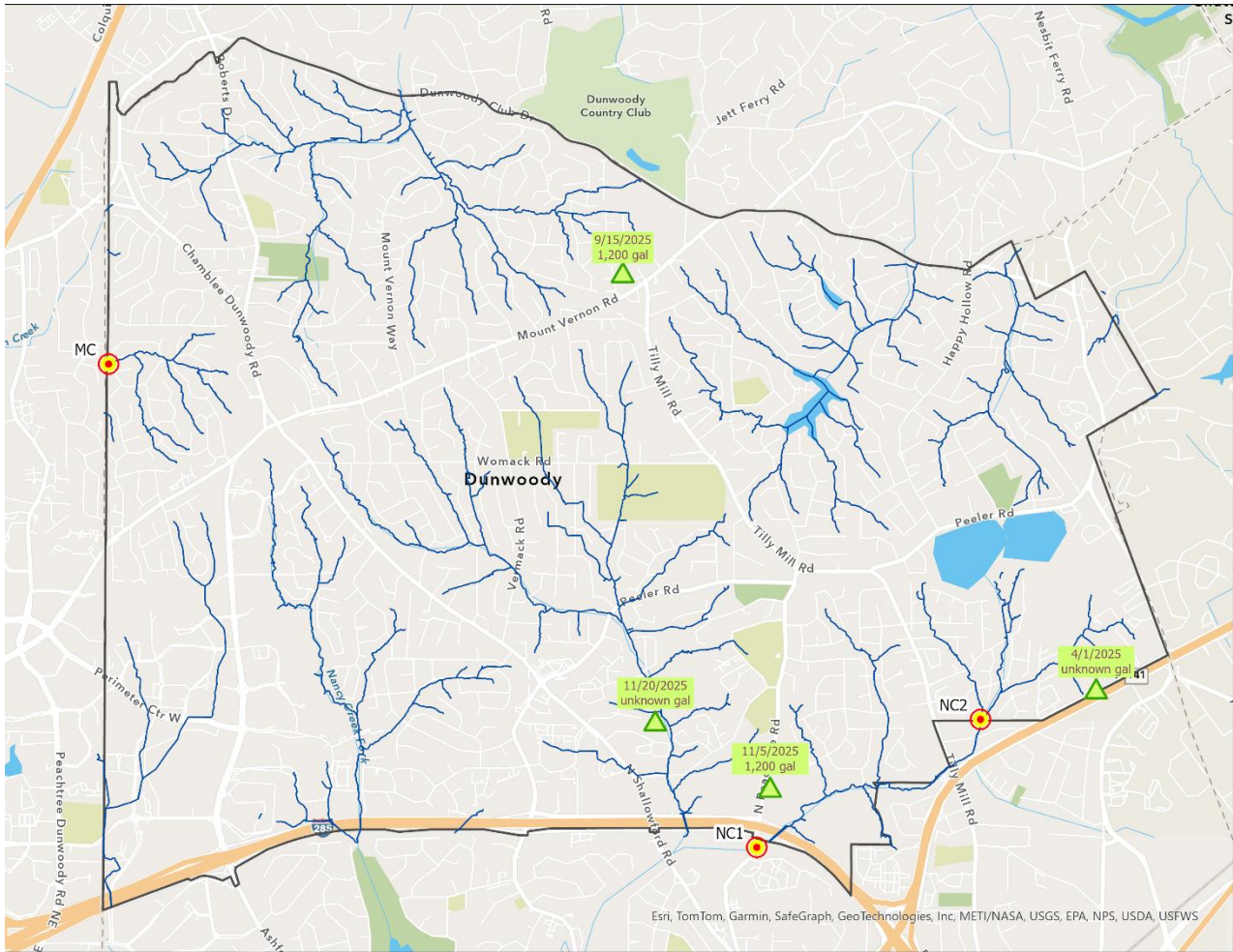


Figure 3 - Locations of SSOs within Dunwoody city-limits in 2025.

Total Suspended Solids (TSS)

TSS is sampled once annually at each of the three locations: 2 sites along Nancy Creek and 1 site at the City limits along Marsh Creek. Data used to evaluate bacteria results is analyzed alongside data from active land disturbance sites in Dunwoody to assess TSS results. Samples for TSS were taken at all three locations on April 17, 2025, during dry weather, consistent with conditions from previous years. Typically, TSS is either undetected at any of the 3 sites in a given year, or a site will have some amount of detectable TSS. In 2025, none of the sites had detectable TSS levels. The 2019-2025 TSS results are provided in a table and chart in the Results section.

BMP Effectiveness

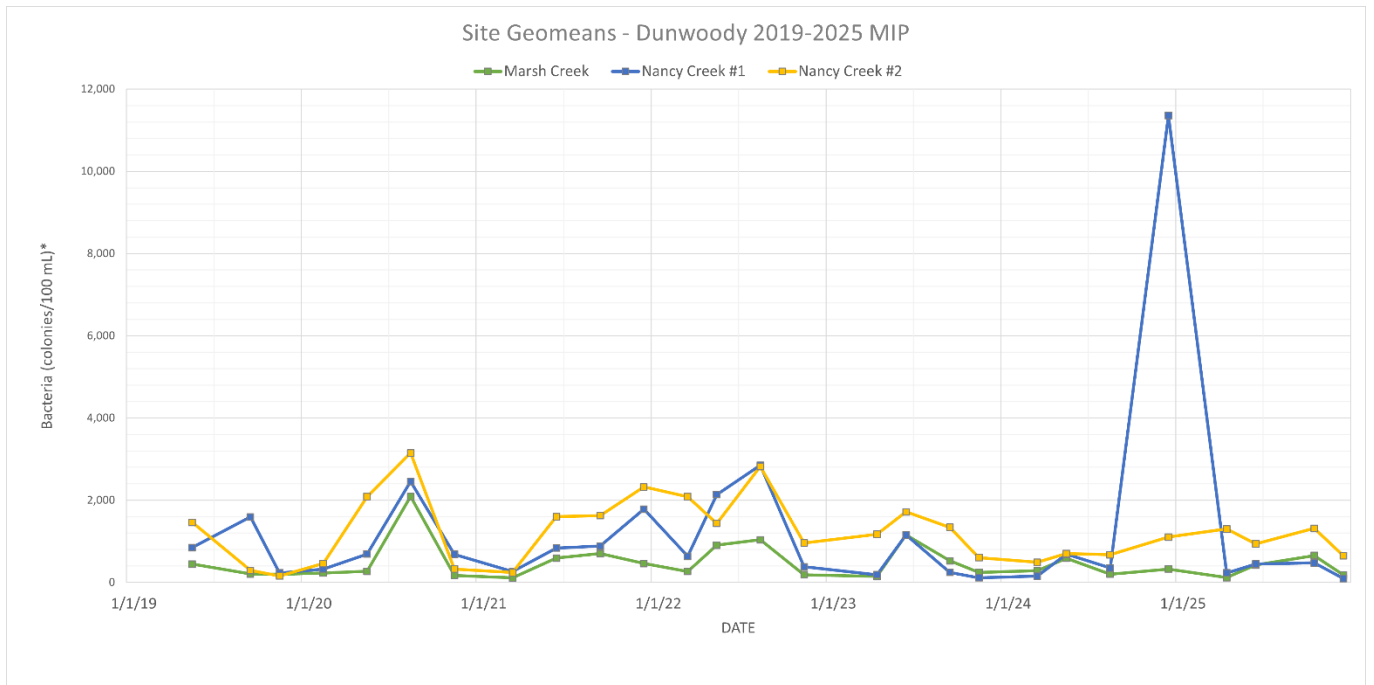
Results from the City's sampling of impaired streams show that water quality has not deteriorated in any manner attributable to the City's MS4 operations. The City considers its current BMPs effective and will continue implementing them per the Impaired Waters Monitoring and Implementation Plan.

Results

Site Location Reference Table

Site	Basin	Location Detail
2	MARSH CREEK	Winding Branch Cir
3	NANCY CREEK #1	N Peachtree Rd
4	NANCY CREEK #2	Binghampton Dr

Bacteria



**E. coli (MPN) is the bacteria indicator used starting November 2022 per EPA Region IV approval of the updated bacteria criteria August 2022 and EPD notice to Phase II MS4's September 2022.*

Bacteria (continued)

Year	Qtr	GEOMEAN Bacteria (Colonies/100ml; MPN)*		
		Site 2 <i>Marsh Creek</i>	Site 3 <i>Nancy Creek #1</i>	Site 4 <i>Nancy Creek #2</i>
2019	2	445	846	1,459
	3	206	1,592	294
	4	198	229	156
2020	1	229	326	460
	2	269	692	2,084
	3	2,088	2,453	3,149
	4	173	682	325
2021	1	109	265	240
	2	594	835	1,601
	3	702	885	1,626
	4	461	1,782	2,323
2022	1	268	634	2,087
	2	906	2,136	1,436
	3	1,036	2,849	2,821
	4	185	380	959
2023	1	144	185	1,171
	2	1,159	1,156	1,717
	3	528	245	1,341
	4	245	113	603
2024	1	285.2	155.5	490.0
	2	589.4	688.0	701.2
	3	199.6	350.9	673.9
	4	326.4	11356.3	1103.9
2025	1	116.2	229.7	1301
	2	423	449.4	939.1
	3	654.8	476.8	1312.9
	4	180.7	96.4	648.5

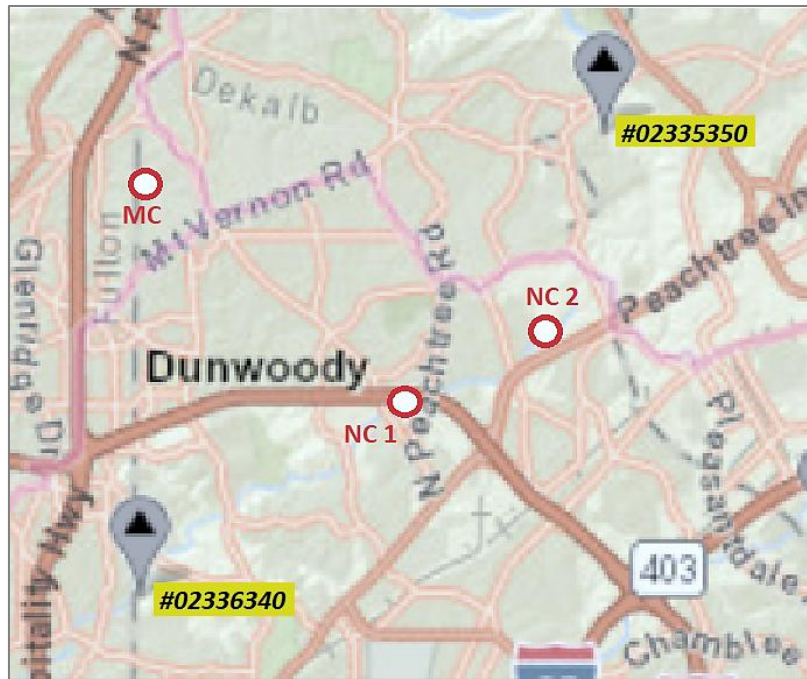
* Bacteria parameter prior to Quarter 4 2022 is Fecal Coliform (Colonies/100mL); E. coli (MPN) results are in red text.

Bacteria(continued)

- 2025 Quarterly Sample Results and USGS Precipitation Data:

	MC	NC1	NC2	Precip. Total (in)	Precip. Prev 24-hrs	Precip. Total (in)	Precip. Prev. 24-hrs
Sampling Dates	Site 2	Site 3	Site 4	USGS 02336340		USGS 02335350	
4/9/2025	233	1,515	677	0.00	0.00	0.00	0.00
4/17/25	52	631	712	0.00	0.00	0.00	0.00
4/22/25	43	122	1,724	0.01	0.01	0.01	0.01
4/28/25	350	158	3,448	0.00	0.00	0.00	0.00
6/19/25	408	1,081	2,755	0.11	0.24	0.15	0.62
6/23/25	771	616	1,597	0.00	0.00	0.00	0.00
6/25/25	295	246	369	0.76	0.76	0.00	0.00
6/30/25	345	249	479	0.24	0.47	0.00	0.00
10/9/25	479	379	683	0.00	0.03	0.00	0.04
10/16/25	441	31	624	0.00	0.00	0.00	0.00
10/20/25	432	759	959	0.00	0.07	0.00	0.06
10/28/25	2,014	5,794	7,270	0.01	2.65	0.01	2.41
12/4/25	211	134	860	0.17	0.17	0.20	0.20
12/10/25	932	52	809	0.00	0.00	0.00	0.00
12/17/25	86	146	1,017	0.00	0.00	0.00	0.00
12/22/25	63	85	250	0.00	0.00	0.00	0.00

- USGS Site locations relative to Dunwoody monitoring locations:



USGS - NWIS: Mapper <https://maps.waterdata.usgs.gov/mapper/index.html>

Total Suspended Solids (TSS, mg/L)

SITE	SAMPLE DATE						
	3/27/2019	2/4/2020	3/8/2021	3/14/2022	4/19/2023	3/13/2024	4/17/2025
2 - Marsh Creek	0.8	BRL (TSS)	1.2	1.2	BRL (TSS)	BRL (TSS)	BRL (TSS)
3 - Nancy Creek #1	2.4	BRL (TSS)	1.2	2.8	BRL (TSS)	4.4	BRL (TSS)
4 - Nancy Creek #2	5.2	BRL (TSS)	2.8	4.4	BRL (TSS)	BRL (TSS)	BRL (TSS)

