

City of Dunwoody, Georgia

Impaired Waters Plan 2020 Annual Report – Narrative Analysis

Data Assessment

Fecal Coliform

The City of Dunwoody performed sampling following its Impaired Waters Plan during the 2020 reporting period. Results for the individual fecal coliform samples, calculations of the geometric means, and data from sanitary sewer overflows (SSO's) reports provided by DeKalb County Watershed Management are provided in spreadsheets included as attachments in the City's 2020 Annual Report. Charts of the individual sampling results and line graphs for the geometric means, calculated for each quarter at each site, were generated using the spreadsheet data and are included in the following pages.

Results for fecal coliform were compared to dates, times and locations of known spills. Rain data from the day of sampling and from the previous 24 hours was also collected and considered when reviewing the results. Results were also compared between the 2 watersheds as this can sometimes demonstrate a localized issue.

In contrast to the data obtained throughout 2019, high levels of fecal coliform in the 2020 samples did not appear to be associated with reported sanitary sewer spills. In cases where samples were taken within 24 hours after a reported SSO, the sites were not located downstream of the discharge. However, rain data from 2 local USGS stations did demonstrate a significant rise in fecal coliform when the Dunwoody area had received a significant amount of rain (1 inch or more) within the previous 24 hours, and that had continued rainfall the day of sampling. When there was heavy rain on the day of sampling and no rain on the day before, the level of fecal coliform remained relatively low at all sites. This may be attributed to unreported, acute overflows caused by an overwhelmed sanitary sewer system in the presence of already-saturated soils.

Overall, the number of spills reported in Dunwoody increased from 9 in 2019 to 10 in 2020.

TSS

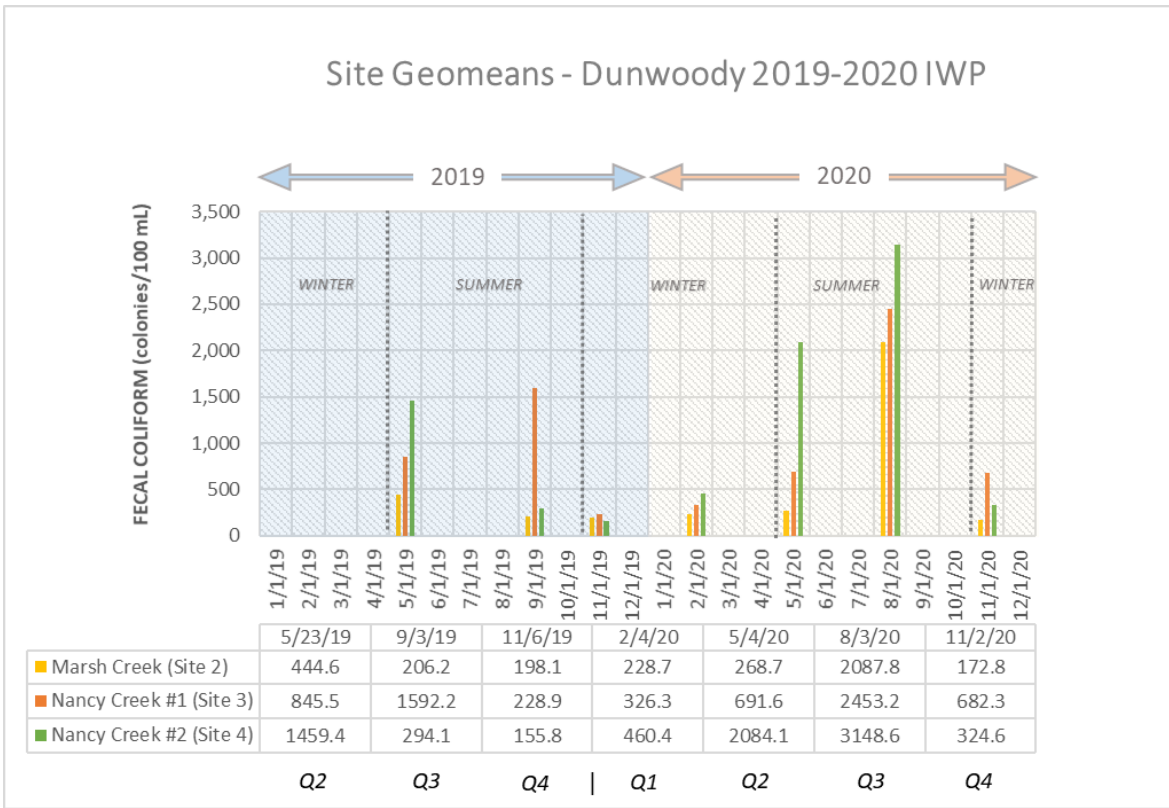
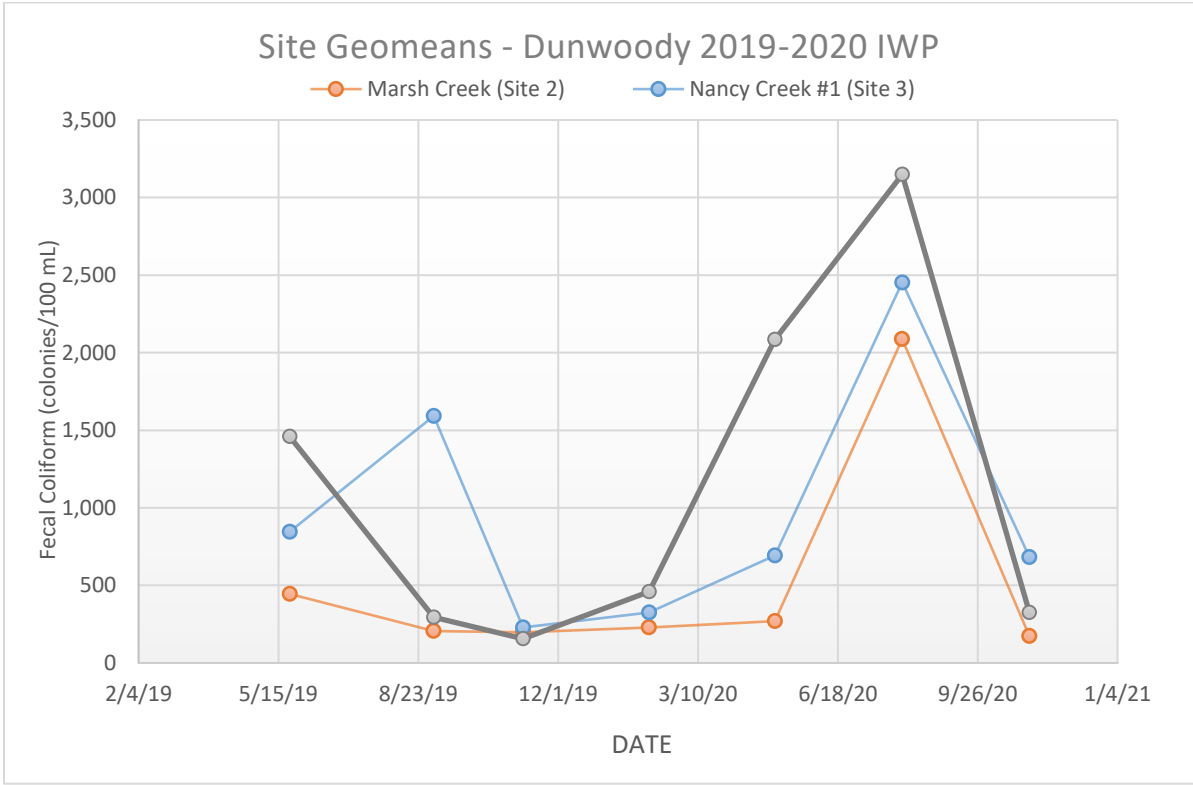
TSS is sampled for once annually at each of the three locations: 2 sites along Nancy Creek and 1 site at the City limits along Marsh Creek. Samples were taken for TSS at all three locations on 2/4/2020. Each site had a result of BRL (Below Reportable Limit). In comparison, the previous year's results, collected on 4/25/2019 during similarly dry weather, did have detectable levels of TSS at both of the Nancy Creek sample sites. The results of the TSS sampling performed in 2020 are tabulated in the Results section.

BMP Effectiveness

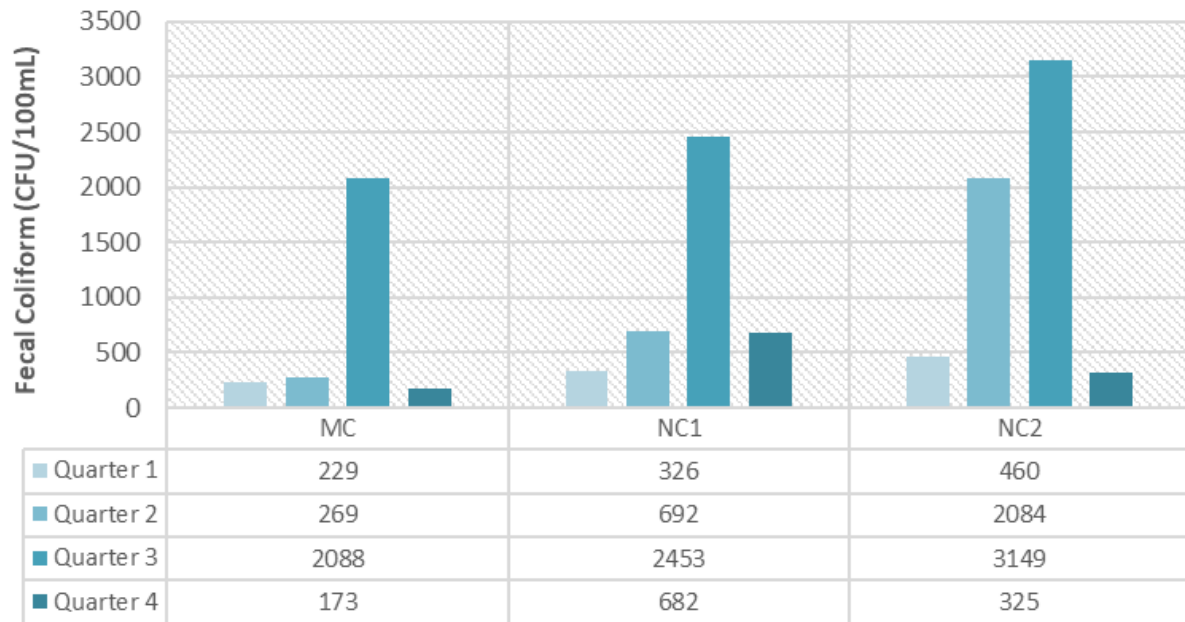
The results generated from the City's sampling of its impaired streams show that they have kept the same quality. The instances of elevated levels of fecal coliform were able to be correlated with probable SSO events. The TSS levels recorded early in the reporting period were below reportable limits at all three sites. For these reasons, the City considers its current BMP's to be effective and so will continue using those proposed in its Impaired Waters Plan (updated copy is attached in the Annual Report documentation).

Results

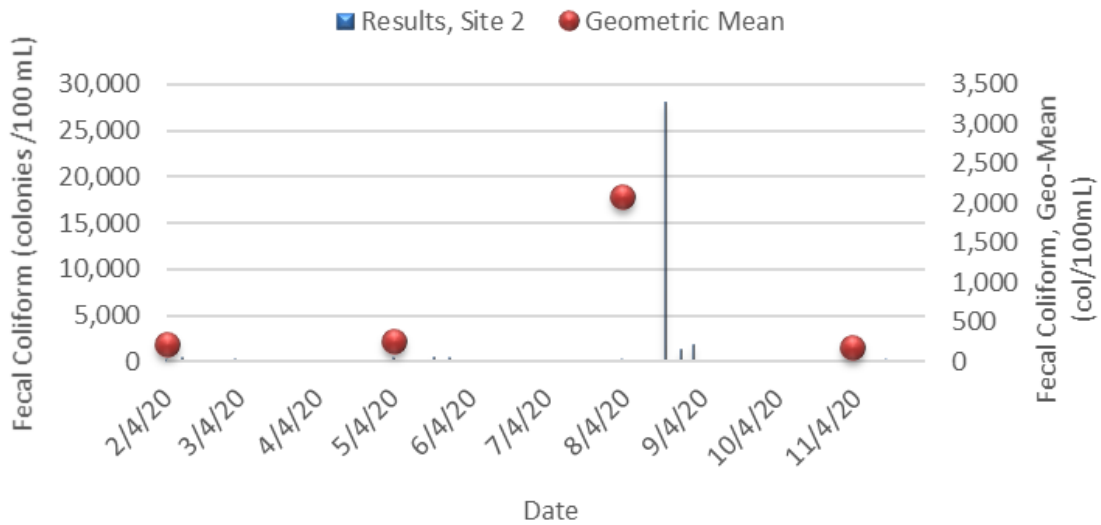
Fecal Coliform



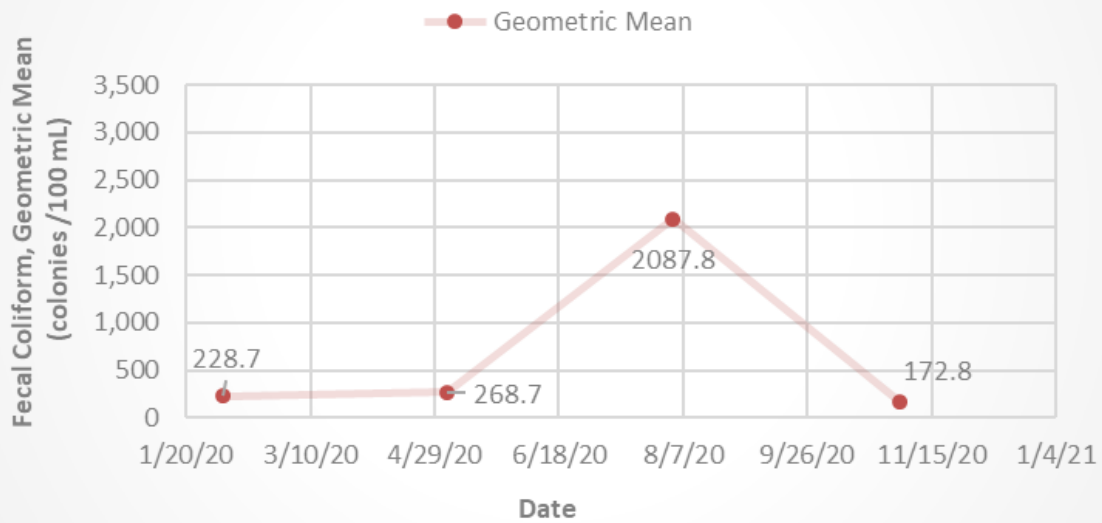
Dunwoody IWP 2020 Geometric Means



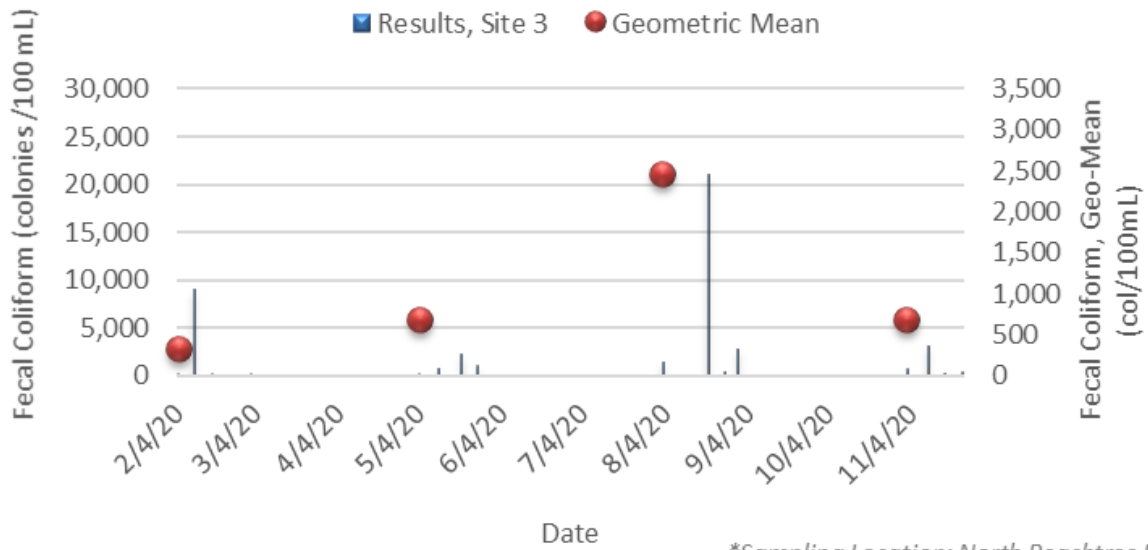
Marsh Creek - 2020 IWP Samples



Marsh Creek - 2020 IWP Samples

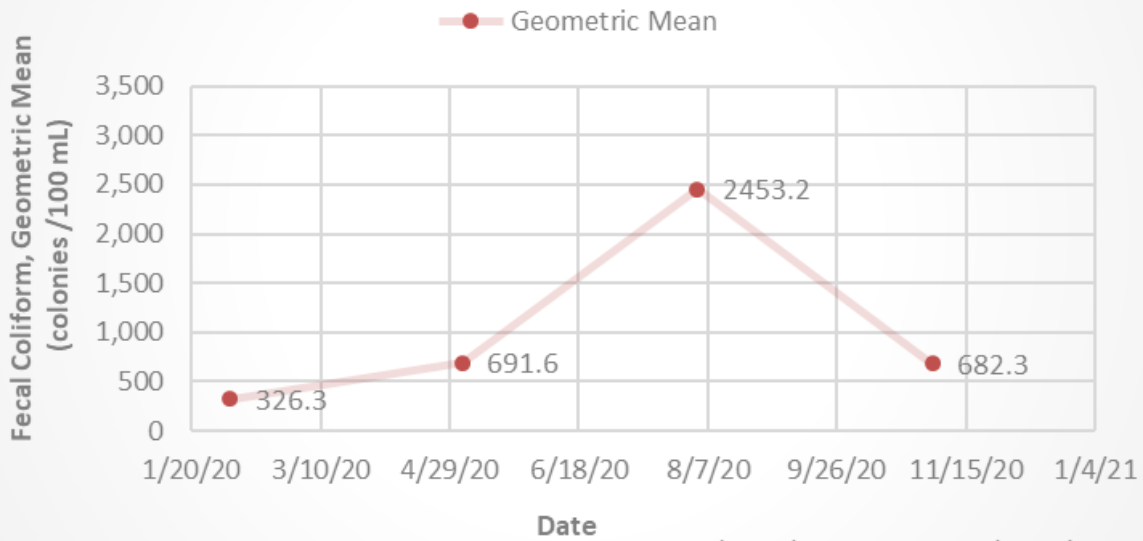


Nancy Creek #1* - 2020 IWP Samples



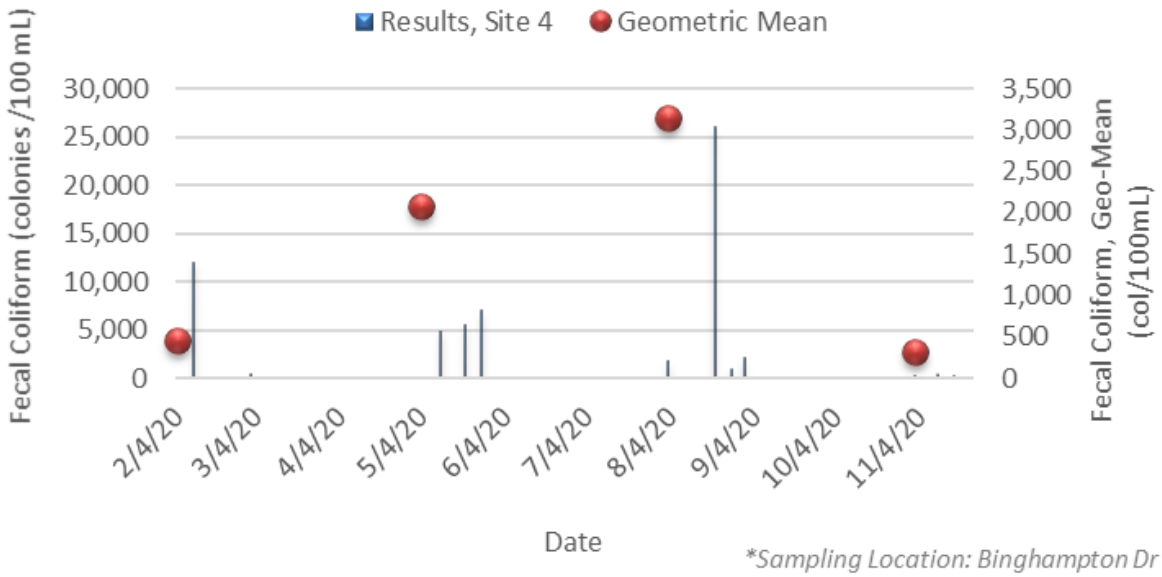
*Sampling Location: North Peachtree Rd

Nancy Creek #1* - 2020 IWP Samples

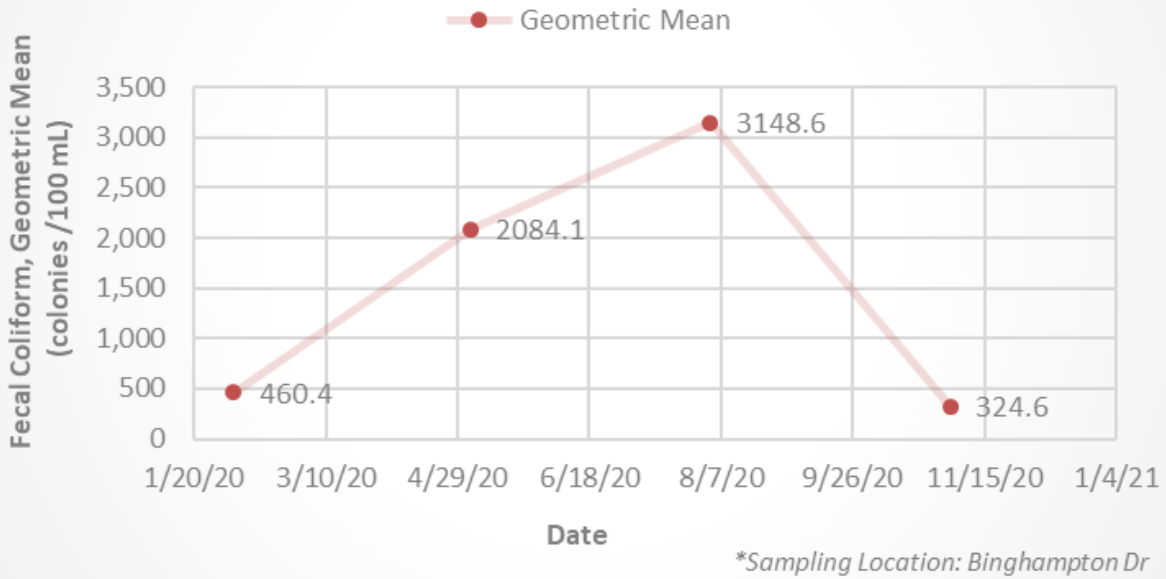


*Sampling Location: North Peachtree Rd

Nancy Creek #2* - 2020 IWP Samples



Nancy Creek #2* - 2020 IWP Samples



TSS

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

SITE	SAMPLE DATE	
	<i>3/27/2019</i>	<i>2/4/2020</i>
2 - Marsh Creek	0.8	BRL (TSS)
3 - Nancy Creek #1	2.4	BRL (TSS)
4 - Nancy Creek #2	5.2	BRL (TSS)