

# Tennessee Department of Environment and Conservation Division of Water Resources William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243 1-888-891-8332 (TDEC)

Phase II Small Municipal Separate Storm Sewer System (MS4) Annual Report

#### 1. MS4 Information

Name of MS4: Belle Meade		MS4 Permit Number: TNS075159				
Сс	ontact Person: Larry Smith		Email Address: Is	mith@citybelleme	eade.org	
Τe	elephone: (615) 297-6041		MS4 Program Web Address: http://www.citybellemeade.org/stormwater			
Ma	ailing Address: 4705 Harding Road	t				
Ci	ty: Nashville	State: TN		ZIP code: 3720	5	
Wh	at is the current population of your	MS4? <u>3,300</u>				
Wh	at is the reporting period for this an	inual report?	July1 <u>2018</u> to June 3	30 <u>2019</u>		
Discharges to Waterbodies with Unavailable Parameters or Exceptional Tennessee Waters (Section 3.1)						
A.	to as impaired) for pathogens, nut stormwater runoff from urbanized	rients, siltation or ot areas as listed on T	her parameters rela N's most current 30	ated to 03(d) list	⊠ Yes	□ No
B.	ws-tennessees-total-maximum-da	ily-load-tmdl-progra	m) with waste load		⊠ Yes	□No
C.		•	•		⊠ Yes	□ No
D.	discharges to waterbodies with un specific practices: The City consis website about the need for proper disposal system working well there systems and leach fields to be use	navailable paramete stently educates its of sewer grinder pum eby often preventing ed. Newsletter article	rs or ETWs? If yes, citizens through the p care to help keep the need for back es about not dispos	describe the newsletter and the sewer up septic ing of	⊠ Yes	□No
<u>Put</u>	olic Education/Outreach and Involve	ement/Participation	(Sections 4.2.1 and	4.2.2)		
A.	Have you developed a Public Info	rmation and Educat	ion plan (PIE)?			☐ No
B.	Spots? If yes, describe the specific education program: The City approximation community (contractors, architects construction-related potential polludisturbance permit process. The next construction	ic pollutants and/or roach targets two ms, engineers) and reution, the City educationthly City newslet	sources targeted by ain audiences: the o sidents. For sedime ates contractors duri tter includes stormw	y your public development ent and other ing the land	⊠ Yes	□No
	Cc Ma Ci Wh Wh Dis A.  B.  C.  Put A.	Contact Person: Larry Smith  Telephone: (615) 297-6041  Mailing Address: 4705 Harding Road City: Nashville  What is the current population of your What is the reporting period for this an Discharges to Waterbodies with Unava A. Does your MS4 discharge into wa to as impaired) for pathogens, nut stormwater runoff from urbanized and/or according to the on-line sta attach a list.  B. Are there established and approve ws-tennessees-total-maximum-da MS4 discharges in your jurisdictio C. Does your MS4 discharge to any http://environment-online.tn.gov:8080 attach a list.  D. Are you implementing specific Bedischarges to waterbodies with un specific practices: The City consist website about the need for proper disposal system working well there systems and leach fields to be use landscape debris in streams and of Public Education/Outreach and Involve A. Have you developed a Public Info B. Is your public education program and Spots? If yes, describe the specified education program: The City app community (contractors, architects construction-related potential pollution disturbance permit process. The relations of the relation of the pollution of the process. The relations of the process of the pre	Contact Person: Larry Smith  Telephone: (615) 297-6041  Mailing Address: 4705 Harding Road  City: Nashville  State: TN  What is the current population of your MS4? 3,300  What is the reporting period for this annual report?  Discharges to Waterbodies with Unavailable Parameters of the assimpaired and in the parameters of the assimpaired areas as listed on Total and/or according to the on-line state GIS mapping total attach a list.  B. Are there established and approved TMDLs (http://wwws-tennessees-total-maximum-daily-load-tmdl-program MS4 discharges in your jurisdiction? If yes, attach a list.  C. Does your MS4 discharge to any Exceptional Tennes http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9 attach a list.  D. Are you implementing specific Best Management Pradischarges to waterbodies with unavailable paramete specific practices: The City consistently educates its of website about the need for proper sewer grinder pumdisposal system working well thereby often preventing systems and leach fields to be used. Newsletter articl landscape debris in streams and channels help to tars.  Public Education/Outreach and Involvement/Participation  A. Have you developed a Public Information and Educate Spots? If yes, describe the specific pollutants and/or education program: The City approach targets two moments of the program of targets the construction-related potential pollution, the City educated disturbance permit process. The monthly City newsless.	Contact Person: Larry Smith  Telephone: (615) 297-6041  Mailing Address: 4705 Harding Road  City: Nashville  State: TN  What is the current population of your MS4?  July1 2018 to June 3  Discharges to Waterbodies with Unavailable Parameters or Exceptional Tenn  A. Does your MS4 discharge into waters with unavailable parameters (previt oas impaired) for pathogens, nutrients, siltation or other parameters relestormwater runoff from urbanized areas as listed on TN's most current 30 and/or according to the on-line state GIS mapping tool (tdeconline.tn.gov) attach a list.  B. Are there established and approved TMDLs (http://www.tn.gov/environmews-tennessees-total-maximum-daily-load-tmdl-program) with waste load MS4 discharges in your jurisdiction? If yes, attach a list.  C. Does your MS4 discharge to any Exceptional Tennessee Waters (ETWs http://environment-online.tn.gov/8080/pls/enf_reports/f?p=9034:34304:48807900 attach a list.  D. Are you implementing specific Best Management Practices (BMPs) to co discharges to waterbodies with unavailable parameters or ETWs? If yes, specific practices: The City consistently educates its citizens through the website about the need for proper sewer grinder pump care to help keep disposal system working well thereby often preventing the need for back systems and leach fields to be used. Newsletter articles about not dispos landscape debris in streams and channels help to target nutrient pollution.  Public Education/Outreach and Involvement/Participation (Sections 4.2.1 and A. Have you developed a Public Information and Education plan (PIE)?  B. Is your public education program targeting specific pollutants and source: Spots? If yes, describe the specific pollutants and/or sources targeted by education program: The City approach targets two main audiences: the community (contractors, architects, engineers) and residents. For sedime construction-related potential pollution, the City educates contractors duri	Contact Person: Larry Smith  Telephone: (615) 297-6041  MS4 Program Web Address: http://www.citybellemeade.org/storr  Mailing Address: 4705 Harding Road  City: Nashville  State: TN  ZIP code: 3720  What is the current population of your MS4?  3,300  What is the reporting period for this annual report?  July1 2018 to June 30 2019  Discharges to Waterbodies with Unavailable Parameters or Exceptional Tennessee Waters (Sc. A. Does your MS4 discharge into waters with unavailable parameters (previously referred to as impaired) for pathogens, nutrients, siltation or other parameters related to stormwater runoff from urbanized areas as listed on TN's most current 303(d) list and/or according to the on-line state GIS mapping tool (tdeconline.tn.gov/dwr/)? If yes, attach a list.  B. Are there established and approved TMDLs (http://www.tn.gov/environment/article/wrws-tennessees-total-maximum-daily-load-tmdl-program) with waste load allocations for MS4 discharges in your jurisdiction? If yes, attach a list.  C. Does your MS4 discharge to any Exceptional Tennessee Waters (ETWs-http://environment-online.tn.gov/8080/pls/enf_reports/f?p=9034:34304:4880790061142)? If yes, attach a list.  D. Are you implementing specific Best Management Practices (BMPs) to control pollutant discharges to waterbodies with unavailable parameters or ETWs? If yes, describe the specific practices: The City consistently educates its citizens through the newsletter and website about the need for proper sewer grinder pump care to help keep the sewer disposal system working well thereby often preventing the need for back up septic systems and leach fields to be used. Newsletter articles about not disposing of landscape debris in streams and channels help to target nutrient pollution.  Public Education/Outreach and Involvement/Participation (Sections 4.2.1 and 4.2.2)  A. Have you developed a Public Information and Education plan (PIE)?  B. Is your public education program targeting specific pollutants and sources, such as Hot Spots? If yes, describe the s	Contact Person: Larry Smith Email Address: Ismith@citybellemeade.org  Telephone: (615) 297-6041 MS4 Program Web Address: http://www.citybellemeade.org/stormwater  Mailing Address: 4705 Harding Road  City: Nashville State: TN ZIP code: 37205  What is the current population of your MS4? 3,300  What is the current population of your MS4? 3,300  What is the reporting period for this annual report? July1 2018 to June 30 2019  Discharges to Waterbodies with Unavailable Parameters or Exceptional Tennessee Waters (Section 3.1)  A. Does your MS4 discharge into waters with unavailable parameters (previously referred to as impaired) for pathogens, nutrients, silitation or other parameters related to stommwater runoff from urbanized areas as listed on TN's most current 303(d) list and/or according to the on-line state GIS mapping tool (tdeconline.tn.gov/dwr/)? If yes, attach a list.  B. Are there established and approved TMDLs (http://www.tn.gov/environment/article/wrws-tennessees-total-maximum-daily-load-tmdl-program) with waste load allocations for MS4 discharges in your jurisdiction? If yes, attach a list.  C. Does your MS4 discharge to any Exceptional Tennessee Waters (ETWs - http://environment-online.tn.gov/8080/pls/enf_reports/ftp=9034;34304;4880790061142)? If yes, attach a list.  D. Are you implementing specific Best Management Practices (BMPs) to control pollutant discharges to waterbodies with unavailable parameters or ETWs? If yes, describe the specific practices: The City consistently educates its citizens through the newsletter and website about the need for proper sewer grinder pump care to help keep the sewer disposal system working well thereby often preventing the need for back up septic systems and leach fields to be used. Newsletter articles about not disposing of landscape debris in streams and channels help to target nutrient pollution.  Public Education/Outreach and Involvement/Participation (Sections 4.2.1 and 4.2.2)  A. Have you developed a Public Information and Education plan (PIE)?  Yes  Is your p

	C. Do you have a webpage dedicated to your stormwater program? If yes, provide a  ☐ N link/URL: <a href="http://www.citybellemeade.org/stormwater">http://www.citybellemeade.org/stormwater</a>			
	D.	Summarize how you advertise and publicize your public education, outreach, involvement opportunities: The City uses emails and the newsletter to announce stormwater related ever City's website is used to advertise public involvement opportunities such as commissioner	ents or meetin	
	E.	Summarize the public education, outreach, involvement and participation activities you con reporting period: The monthly newsletter contained several stormwater-related articles this September 2018 (proper draining of pool or spa), November 2018 (keeping trash and yard streams), January 2019 (Weed Wrangle event advertised).	year includin	
	F.	Summarize any specific successful outcome(s) (e.g., citizen involvement, pollutant reduction improvement, etc.) fully or partially attributable to your public education and participation per reporting period:		•
	<u>Pul</u>	olic education at Belle Meade County Club targeting Richland Creek (TN05130202314 300 installation of a sealed system to deal with excess nutrients.	0) resulted in t	<u>he</u>
	The	ere were approximately 10 stormwater related calls. Two examples were stormwater comple Condominiums and 503 Lynnwood. Both of these incidences were able to be resolved after complaint was received and verified demonstrating public awareness of whom to call with the complaint was received and verified demonstrating public awareness of whom to call with the complaint was received and verified demonstrating public awareness of whom to call with the complaint was received and verified demonstrating public awareness of whom to call with the complaint was received and verified demonstrating public awareness of whom to call with the complaint was received and verified demonstrating public awareness of whom to call with the complaint was received and verified demonstrating public awareness of whom to call with the complaint was received and verified demonstrating public awareness of whom to call with the complaint was received and verified demonstrating public awareness of whom to call with the complaint was received and verified demonstrating public awareness of whom the call with the complaint was received and verified demonstrating public awareness of whom the call with the complaint was received and the complaint was receiv	er the stormwa	iter
4.	Illic	it Discharge Detection and Elimination (Section 4.2.3)		
	A.	Have you developed and do you continue to update a storm sewer system map that shows the location of system outfalls where the municipal storm sewer system discharges into waters of the state or conveyances owned or operated by another MS4?	⊠ Yes	□No
	B.	If yes, does the map include inputs into the storm sewer collection system, such as the inlets, catch basins, drop structures or other defined contributing points to the sewershed of that outfall, and general direction of stormwater flow?	⊠Yes	□No
	C.	How many outfalls have you identified in your storm sewer system? 60		
	D.	Do you have an ordinance, or other regulatory mechanism, that prohibits non- stormwater discharges into your storm sewer system?	⊠Yes	□No
	E.	Have you implemented a plan to detect, identify and eliminate non-stormwater discharges, including illegal disposal, throughout the storm sewer system? If yes, provide a summary: Once per permit cycle the outfalls are screened for illicit discharges. Staff have been educated on illicit discharges and inspect them on a daily basis during normal activities.	⊠ Yes	□No
	F.	How many illicit discharge related complaints were received this reporting period? $\underline{1}$		
	G.	How many illicit discharge investigations were performed this reporting period? 2		
	H.	Of those investigations performed, how many resulted in valid illicit discharges that were a eliminated? $\underline{1}$	ddressed and/	or
5.	Co	nstruction Site Stormwater Runoff Pollutant Control (Section 4.2.4)		

Do you have an ordinance or other regulatory mechanism requiring:

	Construction site operators to implement appropriate erosion prevention and sediment control BMPs consistent with those described in the TDEC EPSC Handbook?	⊠ Yes	☐ No
	Construction site operators to control wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste?	⊠ Yes	☐ No
	Design storm and special conditions for unavailable parameters waters or Exceptional Tennessee Waters consistent with those of the current Tennessee Construction General Permit (TNR100000)?	⊠ Yes	□No
В.	Do you have specific procedures for construction site plan (including erosion prevention and sediment BMPs) review and approval?	⊠ Yes	☐ No
C.	Do you have sanctions to enforce compliance?	⊠ Yes	□No
D.	Do you hold pre-construction meetings with operators of priority construction activities and inspect priority construction sites at least monthly?	⊠ Yes	☐ No
E.	How many construction sites disturbing at least one acre or greater were active in your jurperiod? $\underline{4}$	risdiction this r	eporting
F.	How many active priority and non-priority construction sites were inspected this reporting	period? <u>15</u>	
G.	How many construction related complaints were received this reporting period? $\underline{4}$		
<u>Pe</u>	rmanent Stormwater Management at New Development and Redevelopment Projects (Sec	ction 4.2.5)	
A.	Do you have a regulatory mechanism (e.g. ordinance) requiring permanent stormwater pollutant removal for development and redevelopment projects? If no, have you submitted an Implementation Plan to the Division?	⊠ Yes □ Yes	□ No
В.	Do you have an ordinance or other regulatory mechanism requiring:		
	Site plan review and approval of new and re-development projects?		☐ No
	A process to ensure stormwater control measures (SCMs) are properly installed and maintained?	⊠ Yes	□ No
	Permanent water quality riparian buffers? If yes, specify requirements: See attached		□No
C.	What is the threshold for development and redevelopment project plans plan review (e.g. disturbing greater than one acre, etc.)? See attached	, all projects, p	orojects
D.	How many development and redevelopment project plans were reviewed for this reporting	g period? 27	
E.	How many development and redevelopment project plans were approved? 13		
F.	How many permanent stormwater related complaints were received this reporting period?	<u>1</u>	
G.	How many enforcement actions were taken to address improper installation or maintenant	ce? <u>1</u>	
H.	Do you have a system to inventory and track the status of all public and private SCMs installed on development and redevelopment projects?	⊠ Yes	☐ No
I.	Does your program include an off-site stormwater mitigation or payment into public stormwater fund? If ves. specify.	☐ Yes	⊠ No

6.

<ol><li>Stormwater Management for Municipal Operations (Section 4)</li></ol>
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A.	As applicable, have stormwater related operation and maintenance plans that include informaintenance activities, schedules and the proper disposal of waste from structural and not controls been developed and implemented at the following municipal operations:		
	Streets, roads, highways?		□No
	Municipal parking lots?	⊠ Yes	□No
	Maintenance and storage yards?	☐ Yes	□No
	Fleet or maintenance shops with outdoor storage areas?	☐ Yes	□No
	Salt and storage locations?	☐ Yes	□No
	Snow disposal areas?	☐ Yes	□No
	Waste disposal, storage, and transfer stations?	⊠ Yes	□No
B.	Do you have a training program for employees responsible for municipal operations at facilities within the jurisdiction that handle, generate and/or store materials which constitute a potential pollutant of concern for MS4s?	⊠ Yes	□No
	If yes, are new applicable employees trained within six months, and existing applicable employees trained and/or retrained within the permit term?	⊠ Yes	□No
	ewing and Updating Stormwater Management Programs (Section 4.4)  Describe any revisions to your program implemented during this reporting period including	but not limited	to:
Λ.		but not illnited	10.
	Modifications or replacement of an ineffective activity/control measure. None  Changes to the program as required by the division to satisfy permit requirements. N/A		
	Information (e.g. additional acreage, outfalls, BMPs) on newly annexed areas and any resprogram. None - annexation is not applicable for the City due to Metro Nashville charter	ulting updates	to your
B.	In preparation for this annual report, have you performed an overall assessment of your stormwater management program effectiveness? If yes, summarize the assessment results, and any modifications and improvements scheduled to be implemented in the next reporting period. The City revised its PIE plan in January 2019 based on past experience targeting the permit-required audiences. The storm sewer input map is being continually updated as new developments are completed. The City is continuing its permanent stormwater management requirements based on the 2010 permit. Draft rule language regarding permanent stormwater requirements was issued by TDEC in late spring 2019. TDEC's audit in early 2019 found the City has implemented each of the six Minimum Control Measures of the Permit. Stream cleanup and street sweeping operations continued through Permit Year 3 and are documented in the City's stormwater Evernote account. The understanding going forward is that proposed projects that seek to mitigate flooding will be reviewed on a case-by-case basis during the course of pre-application meetings and the site plan review process. Water quality improvement measures will be discussed among the design engineer, consultant reviewing engineer, and City manager and recommended as appropriate.	⊠ Yes	□No

9.	9. Enforcement Response Plan (Section 4.5)						
	<ul> <li>A. Have you implemented an enforcement response plan that includes progressive enforcement actions to address non-compliance, and allows the maximum penalties</li></ul>						□No
	B. As applicable, identify which of the following types of enforcement actions (or their equival this reporting period; indicate the number of actions, the minimum measure (e.g., construct permanent stormwater management), and note those for which you do not have authority:				onstruction, illicit	_	
		<u>Action</u>	Construction	Permanent Stormwater	<u>Illicit</u> <u>Discharge</u>	<u>In Your E</u>	RP?
	Verbal v	varnings	# <u>6</u>	# <u>0</u>	# <u>O</u>		□ No
	Written	notices	# <u>2</u>	# <u>O</u>	# <u>0</u>		□No
	Citations administ	s with trative penalties	# <u>0</u>	# <u>0</u>	# <u>0</u>	⊠ Yes	□No
	Stop wo	rk orders	# <u>O</u>	# <u>O</u>	# <u>0</u>		□No
		ding of plan Is or other ations	# <u>0</u>	# <u>0</u>	# <u>0</u>	⊠ Yes	□No
	Addition	al Measures	# <u>O</u>	# <u>O</u>	# <u>O</u> [	Describe: N/A	
	C. De	o you track instance	es of non-complianc	e and related enforce	ment documentation	? ⊠ Yes	□No
	D. What were the most common types of non-compliance instances documented during this reporting period? Construction related complaints.				period?		
10	. Monito	ring, Recordkeepin	g and reporting (Sec	ction 5)			
	A. Summarize any analytical monitoring activities (e.g., planning, collection, evaluation of results) performed during this reporting period. N/A						rmed during
	B. Summarize any non-analytical monitoring activities (e.g., planning, collection, evaluation of results) performed during this reporting period. N/A					erformed	
		applicable, are mor bmitted with this re	•	ctivities performed du	iring this reporting pe	eriod	⊠ No

#### 11. Certification

This report must be signed by a ranking elected official or by a duly authorized representative of that person. See signatory requirements in sub-part 6.7.2 of the permit.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name and Title

Signature

9-18-19

Date

Annual reports must be submitted by September 30 of each calendar year (Section 5.4) to the appropriate Environmental Field Office (EFO), identified in the table below:

EFO	Street Address	City	Zip Code	Telephone
Chattanooga	1301 Riverfront Pkwy, Suite 206	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 520-6688
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 R S Gass Boulevard	Nashville	37216	(615) 687-7000

City of Belle Meade, TN Municipal Separate Storm Sewer System (MS4) Annual Report Report Attachments

### **ATTACHMENTS**

Section 2.A. - List of Waters with Unavailable Parameters in Jurisdiction Based on TDEC Viewer as of September 2019

Waterbody Name	Waterbody Description	Waterbody I.D. #	Cause(s)	Source Name(s)
			Other anthropogenic substrate alterations	Municipal (Urbanized High Density Area)
Disklass I	Briley Parkway	TN05120202214	Escherichia coli	Sanitary Sewer Overflows (Collection System Failures)
Richland Creek	to Jocelyn Hollow Branch	TN05130202314 _2000	Phosphorus (Total)	Discharges from Municipal Separate Storm Sewer Systems (MS4)
			Nitrate/Nitrite (Nitrite + Nitrate as N)	Discharges from Municipal Separate Storm Sewer Systems (MS4)
			Phosphorus (Total)	Discharges from Municipal Separate Storm Sewer Systems (MS4)
Richland Creek	Jocelyn Hollow Branch to	TN05130202314 _3000	Nitrate/Nitrite (Nitrite + Nitrate as N)	Discharges from Municipal Separate Storm Sewer Systems (MS4)
Creek	headwaters	_3000	Other anthropogenic substrate alterations	Municipal (Urbanized High Density Area)
			Escherichia coli	Discharges from Municipal Separate Storm Sewer Systems (MS4)
			Escherichia coli	Discharges from Municipal Separate Storm Sewer Systems (MS4)
			Phosphorus (Total)	Discharges from Municipal Separate Storm Sewer Systems (MS4)
Sugartree Creek	Richland Creek to headwaters	TN05130202314 _0400	Dissolved Oxygen	Discharges from Municipal Separate Storm Sewer Systems (MS4)
			Other anthropogenic substrate alterations	Municipal (Urbanized High Density Area)
			Nitrate/Nitrite (Nitrite + Nitrate as N)	Discharges from Municipal Separate Storm Sewer Systems (MS4)
			Escherichia coli	Discharges from Municipal Separate Storm Sewer Systems (MS4)
Jocelyn Hollow Branch	Richland Creek to headwaters	TN05130202314 _0800	Nitrate/Nitrite (Nitrite + Nitrate as N)	Discharges from Municipal Separate Storm Sewer Systems (MS4)
			Phosphorus (Total)	Discharges from Municipal Separate Storm Sewer Systems (MS4)

City of Belle Meade, TN Municipal Separate Storm Sewer System (MS4) Annual Report Report Attachments

## Section 2.B. TMDLs with Waste Load Allocations for MS4 Discharges Summary (cont'd) of TMDLs, WLAs, & LAs expressed as daily loads for Impaired Waterbodies in the Lower Cumberland Watershed (HUC 05130202)

						WLAs		
HUC-12 Subwatershed (05130202) or Drainage Area (DA)	Impaired Waterbody Name	Impaired Waterbody ID	TMDL	MOS	WWTFs a	Leaking Collection Systems	MS4s	LAs
Alea (DA)			[CFU/day]	[CFU/day]	[CFU/day]	[CFU/day]	[CFU/day/acre]	[CFU/day/acre]
	Earthman Fork	TN05130202010 - 0400	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	5.158 x 10 <sup>6</sup> * Q	5.158 x 10 <sup>6</sup> * Q
0105	Ewing Creek	TN05130202010 - 0800	1.20 x 10 <sup>10</sup> * Q	1.20 x 10 <sup>9</sup> * Q	NA	0	1.273 x 10 <sup>6</sup> * Q	1.273 x 10 <sup>6</sup> * Q
0105	Little Creek	TN05130202010 - 0700	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	6.263 x 10 <sup>6</sup> * Q	6.263 x 10 <sup>6</sup> * Q
	Whites Creek	TN05130202010 - 1000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	5.251 x 10 <sup>5</sup> * Q	5.251 x 10 <sup>5</sup> * Q
	Bosley Springs Branch	TN05130202314 - 0300	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.434 x 10 <sup>7</sup> * Q	1.434 x 10 <sup>7</sup> * Q
	Jocelyn Hollow Branch	TN05130202314 - 0800	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.249 x 10 <sup>7</sup> * Q	1.249 x 10 <sup>7</sup> * Q
	Murphy Road Branch	TN05130202314 - 0200	1.20 x 10 <sup>10</sup> * Q	1.20 x 10 <sup>9</sup> * Q	NA	0	2.166 x 10 <sup>7</sup> * Q	2.166 x 10 <sup>7</sup> * Q
	Richland Creek	TN05130202314 - 1000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.214 x 10 <sup>6</sup> * Q	1.214 x 10 <sup>6</sup> * Q
	Richland Creek	TN05130202314 - 2000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	7.055 x 10 <sup>5</sup> * Q	7.055 x 10 <sup>5</sup> * Q
0106	Richland Creek	TN05130202314 - 3000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.605 x 10 <sup>6</sup> * Q	1.605 x 10 <sup>6</sup> * Q
	Sugartree Creek	TN05130202314 - 0400	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	6.917 x 10 <sup>6</sup> * Q	6.917 x 10 <sup>6</sup> * Q
	Unnamed Tributary to Richland Creek	TN05130202314 - 0100	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.457 x 10 <sup>8</sup> * Q	1.457 x 10 <sup>8</sup> * Q
	Vaughns Gap Branch	TN05130202314 - 0700	1.20 x 10 <sup>10</sup> * Q	1.20 x 10 <sup>9</sup> * Q	NA	0	5.950 x 10 <sup>6</sup> * Q	5.950 x 10 <sup>6</sup> * Q
	Vaughns Gap Branch	TN05130202314 - 0750	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.140 x 10 <sup>7</sup> * Q	1.140 x 10 <sup>7</sup> * Q
0201	Mill Creek	TN05130202007 - 5000	1.20 x 10 <sup>10</sup> * Q	1.20 x 10 <sup>9</sup> * Q	NA	0	4.876 x 10 <sup>5</sup> * Q	4.876 x 10 <sup>5</sup> * Q
	Finley Branch	TN05130202007 - 0300	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	5.951 x 10 <sup>7</sup> * Q	5.951 x 10 <sup>7</sup> * Q
0202	Mill Creek	TN05130202007 - 3000	1.20 x 10 <sup>10</sup> * Q	1.20 x 10 <sup>9</sup> * Q	NA	0	2.467 x 10 <sup>5</sup> * Q	2.467 x 10 <sup>5</sup> * Q
	Pavillion Branch	TN05130202007 - 1500	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	3.685 x 10 <sup>7</sup> * Q	3.685 x 10 <sup>7</sup> * Q

Section 2.C. - List of Exceptional Tennessee Waters (ETWs) to which the MS4 discharges

Waterbody Name	Waterbody Description	HUC	Reason for Inclusion
Jocelyn Hollow Branch	•		Belle Meade Mansion State Historic Area
Richland Creek Unnamed Tributary	Headwater tributary of Richland Creek from mouth to origin	05130202	State threatened Water Stitchwort
Richland Creek	From just D/S of The Temple (5015 Harding Pike) to upstream boundary of Belle Meade Mansion State Historic Area	05130202	Belle Meade Mansion State Historic Area and State threatened Water Stitchwort

City of Belle Meade, TN Municipal Separate Storm Sewer System (MS4) Annual Report Report Attachments

#### Section 6.B. – Water Quality Riparian Buffer Requirements

12-209. Water quality buffers. (1) Scope. A water quality buffer shall be established, protected, and maintained along all community waters in areas of new development and redevelopment for which a land disturbance permit, as defined in § 12-205, is required in accordance with Table 3 or Table 4 below, as applicable. The goal of the water quality buffer is to preserve undisturbed vegetation that is native to the streamside habitat in the area of the project. Vegetated, preferably native, water quality buffers protect water bodies by providing structural integrity and canopy cover, as well as stormwater infiltration, filtration and evapotranspiration.

#### Section 6.B. (con't) – Water Quality Riparian Buffer Requirements

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Table 3 - Water Quality Buffer Requirements for Sites That Disturb <1 acre (no CGP coverage required)				
Community water characteristics	Permanent buffer	During construction (temporary) buffer		
All community waters	20-feet (City-approved buffer enhancement plan required for temporary buffer encroachment)	20-feet (City-approved buffer enhancement plan required for temporary buffer encroachment)		

Table 4-Water Quality Buffer Requirements for Sites That Require CGP Coverage				
Community water characteristics	Permanent buffer	During construction (temporary) buffer		
Community water drainage area <1 square mile and <u>not</u> designated as impaired or an Exceptional Tennessee Water (ETW)	30-feet	30-feet (Can be established on an average basis as long as minimum is 15-feet. City approved buffer enhancement plan required for CGP-allowable, temporary buffer enchroachment.)		
Community water drainage area <1 square mile and designated as impaired or an Exceptional Tennessee Water (ETW)	30-feet	60-feet (Can be established on an average basis as long as minimum is 30-feet.)		
Community water drainage area >1 square mile and not designated as impaired or an Exceptional Tennessee Water (ETW)	60-feet (Can be established on an average basis as long as minimum is 30-feet.)	30-feet (Can be established on an average basis as long as minimum is 15-feet. City approved buffer enhancement plan required for CGP-allowable, temporary buffer enchroachment.)		
Community water drainage area >1 square mile and designated as impaired or an Exceptional Tennessee Water (ETW)	60-feet (Can be established on an average basis as long as minimum is 30-feet.)	60-feet (Can be established on an average basis as long as minimum is 30-feet.)		
Note: "Impaired" refers to commu	unity water that is impaired for	siltation and habitat alteration.		

#### **Section 6.C. – Water Quality Riparian Buffer Requirements**

(2) <u>Land development</u>. This section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, and land disturbance applications. These standards apply to any new development or redevelopment site according to Table 1 below:

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Table 1 - Land Disturbance Permit (LDP)					
Total Disturbed area	LDP Required?	City forms/checklists to complete	Stormwater Management Plan required?	Construction General Permit (CGP) coverage required?	Water Quality Buffer Required?
<10,000 ft	No	None	No	No	No
10,000 ft²- 0.99 acre	Yes	General, Checklist 1-3	Yes; See Checklist 3 and Table 2	No	See Table 3
1 acre or more	Yes	General, Checklist 1-3	Yes; See Checklist 3 and Table 2	Yes	See Table 4