

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

	N	Name of MS4: City of Morristown		MS4 Permit Number: TNS076031				
	Co	ontact Person: Jim Whitbeck, P.E.	Email Address: jwhitbeck@mymorristown.com					
	Te	elephone: (423) 353-1055	MS4 Program Web Address: www.mymorristown.com/departments/public_works/stor mwater/index.php					
	М	ailing Address: PO Box 1499						
City: Morristown State: TN			State: TN	ZIP code: 37816-1499				
	Wh	at is the current population of your	MS4? <u>29,771</u>					
	Wh	nat is the reporting period for this an	nual report?	July1 <u>2017</u> to June 3	30 <u>2018</u>			
2.	Dis	charges to Waterbodies with Unava	ailable Parameters o	or Exceptional Tenn	essee Waters (Se	ection 3.1)		
	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.					⊠ Yes	□ No	
	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. ⊠ Yes						□ No	
	C.	Does your MS4 discharge to any E http://environment-online.tn.gov:8080/gattacha. list.	•	•		☐ Yes	⊠ No	
	D.	Are you implementing specific Bes discharges to waterbodies with una specific practices: Confirm appropriately which discharge to waterbodies with the confirmal properties of the confirmal propertie	available parameter riate measures are	rs or ETWs? If yes, provided for constru	describe the uction sites	⊠ Yes	□No	
3.	Pul	blic Education/Outreach and Involve	ement/Participation	(Sections 4.2.1 and	4.2.2)			
	A. Have you developed a Public Information and Education			ion plan (PIE)?			□ No	
	B.	Is your public education program targeting specific pollutants and sources, such as Hot Spots? If yes, describe the specific pollutants and/or sources targeted by your public education program: <u>See Attachment</u>					□ No	
	C.	Do you have a webpage dedicated to your stormwater program? If yes, provide a link/URL:					□No	
	http://www.mymorristown.com/departments/public_works/stormwater/index.php							
	D. Summarize how you advertise and publicize your public education, outreach, involvement opportunities: See Attachment				ach, involvement	and participa	ition	

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- E. Summarize the public education, outreach, involvement and participation activities you completed during this reporting period: See Attachment
- F. Summarize any specific successful outcome(s) (e.g., citizen involvement, pollutant reduction, water quality improvement, etc.) fully or partially attributable to your public education and participation program during this reporting period: <u>See Attachment</u>

		reporting period. <u>Gee Attacriment</u>		
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? 250		
	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: Dry weather screening is performed on all outfalls once during the permit cycle. Any observed flows are investigated to determine if the flow is an illicit discharge. Results are tracked in GIS. More frequent targeting of hot spot areas will be performed in future years.	⊠ Yes	□No
	F.	How many illicit discharge related complaints were received this reporting period? 8		
	G.	How many illicit discharge investigations were performed this reporting period? 8		
	H.	Of those investigations performed, how many resulted in valid illicit discharges that were as eliminated? $\underline{7}$	ddressed and/o	or
5.	<u>Co</u>	nstruction Site Stormwater Runoff Pollutant Control (Section 4.2.4)		
	A.	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
	B.	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

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	E.	How many construction sites disturbing at least one acre or greater were active in your jurisdiction this reporting period? 36				
	F.	How many active priority and non-priority construction sites were inspected this reporting period? 27				
	G.	How many construction related complaints were received this reporting period? 12				
6.	<u>Pe</u>	rmanent Stormwater Management at New Development and Redevelopment Projects (Sect	tion 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		
	B.	Do you have an ordinance or other regulatory mechanism requiring:				
		Site plan review and approval of new and re-development projects?	⊠ Yes	☐ 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., all projects,					
D. How many development and redevelopment project plans were reviewed for this reporting period?						
	E.	How many development and redevelopment project plans were approved? 20				
	F. How many permanent stormwater related complaints were received this reporting period? 2					
	G.	G. How many enforcement actions were taken to address improper installation or maintenance? 2				
	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 yes, specify	☐ Yes	⊠ No		
7.	Sto	rmwater Management for Municipal Operations (Section 4.2.6)				
	A.	As applicable, have stormwater related operation and maintenance plans that include information related to maintenance activities, schedules and the proper disposal of waste from structural and non-structural stormwater controls been developed and implemented at the following municipal operations:				
		Streets, roads, highways?	⊠ Yes	□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 ☐ N					

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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
Re	viewing and Updating Stormwater Management Programs (Section 4.4)		
A.	Describe any revisions to your program implemented during this reporting period including	but not limited	to:
	Modifications or replacement of an ineffective activity/control measure. N/A		
	Changes to the program as required by the division to satisfy permit requirements. $\underline{\text{N/A}}$		
	Information (e.g. additional acreage, outfalls, BMPs) on newly annexed areas and any resprogram. 0.04188 square miles annexed; minimal area, no updates required	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. See Attached	⊠ Yes	□ No

8.

9. <u>Enf</u>	orcement Response Pl	an (Section 4.5)					
A.	•	to address non-com	esponse plan that inc opliance, and allows tholain. N/A		ties ⊠ Yes	□ No	
B.	B. As applicable, identify which of the following types of enforcement actions (or their equivalent) were used dur this reporting period; indicate the number of actions, the minimum measure (e.g., construction, illicit discharge permanent stormwater management), and note those for which you do not have authority:				•		
	<u>Action</u>	Construction	Permanent Stormwater	<u>Illicit</u> <u>Discharge</u>	<u>In Your E</u>	RP?	
Verl	bal warnings	# <u>9</u>	# <u>2</u>	# <u>7</u>	⊠ Yes	□No	
Writ	ten notices	# <u>0</u>	# <u>0</u>	# <u>2</u>	⊠ Yes	□No	
	tions with ninistrative penalties	# <u>0</u>	# <u>0</u>	# <u>O</u>	⊠ Yes	□No	
Stop	o work orders	# <u>0</u>	# <u>O</u>	# <u>0</u>	⊠ Yes	☐ No	
Withholding of plan approvals or other authorizations		# <u>O</u>	# <u>0</u>	# <u>0</u>	⊠ Yes	□No	
Compliance Cause Hea Suspension			Describe: Consen Compliance Order, Cause Hearing, En Suspension, Dama Assessment, Legal	Show nergency ge			
C.	Do you track instance	es of non-complianc	e and related enforce	ment documentatio	n? ⊠ Yes	☐ No	
D.	D. What were the most common types of non-compliance instances documented during this reporting period? <u>Mud in the road</u>						
10. Mo	10. Monitoring, Recordkeeping and reporting (Section 5)						
A.	Summarize any analytical monitoring activities (e.g., planning, collection, evaluation of results) performed during this reporting period. None						
B.	3. Summarize any non-analytical monitoring activities (e.g., planning, collection, evaluation of results) performed during this reporting period. <u>None</u>						

11. Certification

submitted with this report.

C.

☐ Yes

☐ No

If applicable, are monitoring records for activities performed during this reporting period

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."

Gary Chesny Mayor

Signature

9/24/18 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 Morristown

Attachment to Small Municipal Separate Storm Sewer System (MS4) Annual Report 2017-2018 (Year 2) Reporting Period

2.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.

River Basin	Waterbody ID#	Cause	TMDL Approved?	TMDL Pollutant
Holston	TN06010104004T–1900 Fall Creek	Alteration in stream-side or littoral vegetative covers; Sedimentation / Siltation; Nitrate / Nitrite (Nitrite + Nitrate as N); Phosphorus (Total); Escherichia coli	Yes	E. Coli
Holston	TN06010104004T-2210 Stubblefield Creek	Other anthropogenic substrate alterations	No	N/A
Holston	TN06010104004T-2300 Turkey Creek	Nitrate / Nitrite (Nitrite + Nitrate as N); Alteration in stream-side or littoral vegetative covers; Sedimentation / Siltation; Escherichia coli	Yes	E. Coli
Nolichucky	TN06010108001–0100 Flat Creek	Escherichia coli	Yes	E. Coli
Nolichucky	TN06010108043-0400 Cedar Creek	Alteration in stream-side or littoral vegetative covers; Sedimentation / Siltation	Yes	Siltation and Habitat Alteration

2.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 forMS4 discharges in your jurisdiction? If yes, attach a list.

See table in 2.A.

3.B Is your public education program targeting specific pollutants and sources, such as Hot Spots? If yes, describe the specific pollutants and/or sources targeted by your public education program:

Specific pollutant sources which are targeted include: litter, household hazardous waste, BOPAE (Batteries, Oil, Paint, Antifreeze, and Electronics) waste, general water pollution, construction sites, and hot spots.

New developments classified as hot spots require a Special Pollution Abatement Plan, which requires the owner to conduct employee training on pollution prevention at the site. More details on how the other pollutants and sources are targeted are contained in Sections 3.D and 3.E.

3.D Summarize how you advertise and publicize your public education, outreach, involvement and participation opportunities:

The City maintains a website which includes:

- a link to the Keep Morristown-Hamblen Beautiful (KMHB) website for education and involvement opportunities
- a summary of each minimum control measure required by the TDEC permit
- requirements for plan submittal and review
- a copy of the City's stormwater ordinance
- targeted education on stormwater pollution prevention
- rates and other information for the stormwater utility

KMHB coordinates and performs most of the education efforts in partnership with the City. KMHB maintains a website with contact information and information on the programs they implement on behalf of the City. They utilize Facebook and local media (newspaper, radio stations, and the local TV cable channel) to notify the public about upcoming events, how-to's, recycling and litter prevention tips, and other ways for the public to participate.

Public notice of the Annual Report was posted on the City's website and was posted on the City's Facebook and Twitter, as well as on the KMHB Facebook page. The draft Report was posted on the City's website. Comments were accepted via e-mail and telephone.

3.E Summarize the public education, outreach, involvement and participation activities you completed during this reporting period:

Completed by KMHB

- A mobile classroom, sponsored in part by KMHB, was on hand at the Soil Conservation
 Field Days and the BOPAE waste collection. The classroom is a trailer which has
 interactive displays on the life cycle of trash, from disposal to decomposition in a landfill.
 All students who attended the Field Days toured the classroom, and any interested
 attendees at the BOPAE waste collection did so as well.
- A water pollution awareness program, "Freddie the Fish," was presented to approximately 850 fourth graders during Soil Conservation Field Days. All teachers were provided additional materials, including a household product management wheel, stickers, and coloring books, to use in their classrooms to provide additional education.
- Handouts targeting littering by smokers and lawn maintenance BMPs were provided to
 all adults attending the Household Hazardous Waste (HHW) collection, while all children
 received a packet with coloring books and word search puzzles on water pollution and
 litter prevention. The event was promoted with a live radio interview with the Executive
 Director of KMHB on a local radio station.

- A presentation on litter, water pollution, and recycling was presented to students of the Alpha Baptist Church Summer Program. They received backpacks, litter bags, coloring books, word search puzzle, and stickers.
- Alpha Delta Kappa, an honorary organization for women educators, hosted a presentation
 on litter, water pollution, and recycling, and received coloring books, pencils, posters,
 backpacks, t-shirts, and rulers to spread the message to their students.
- KMHB staffed information booths at the Belk Charity Sale, Gospel Fest, and Mountain Makins events. Attendees were welcome to stop by and receive age-appropriate information on cigarette litter, water pollution, and recycling. Supplemental materials such as backpacks, t-shirts, pencils, cups, brochures, litter bags, and stickers were distributed as well.
- The BOPAE waste collection secured nearly 22,000 pounds of those items plus light bulbs. In addition, adults were provided information on HHW management and materials such as backpacks, t-shirts, and trash bags. Children received information on litter and water pollution and appropriate materials such as coloring books and puzzles.
- KMHB provided educational material for all employees at a local industry. The information was provided to employees as handouts and aired on the in-plant TV channel as well.
- Backpacks and other materials with anti-litter messages were provided to all attendees of Project Graduation, an overnight event for graduating high schoolers.
- Approximately 100 vehicles delivered 43.5 tons of tires to the Tire Collection. This event was another opportunity to provide age-appropriate educational brochures and materials to adults and children on the topics of litter, cigarette litter, and water pollution.
- Recycling receptacles were provided at several outdoor events to encourage recycling
 instead of littering. These included the Lakeway Hola Festival, Chili Cook-off, Boo Fest,
 Music on the Green concerts, and several arts festivals.
- Approximately 20 litter pickups were performed by volunteers.
- Ten newspaper articles appeared in the *Citizen Tribune* covering the BOPAE waste collection, HHW collection, recycling, and tire collection.

Completed by the City

- An article ran in the City's newsletter with information on cigarette litter receptacles installed downtown, recycling receptacles installed at City parks, and the details of the Tire Collection event.
- A "Tennessee Construction Guide to Cleaner Water" brochure was distributed with most land disturbance permits and major building permits issued by the City.

- 3.F Summarize any specific successful outcome(s) (e.g., citizen involvement, pollutant reduction, water quality improvement, etc.) fully or partially attributable to your public education and participation program during this reporting period:
 - The education efforts summarized in Section 3.E resulted in the following volunteer participation by members of the public. Note that the "volunteers" and "hours" columns in the table reflect active participation in organizing and conducting the activities. The "attendees" column is an estimate of attendees who were exposed to the education message.

Summary of Public Participation

Activity	Volunteers	Hours	Attendees
BOPAE Collection	12	30.5	216
Cigarette Litter	17	17.0	10
HHW Collection	13	61.3	280
Litter Cleanup	59	121.3	65
Misc Education	62	159.5	2,651
Recycling	21	33.0	12,490
Soil Conservation Field Days	19	65.5	856
Tire Collection	28	139.0	193
Total	231	627.0	16,761

- BOPAE waste collection attendees delivered nearly 22,000 pounds of those items plus light bulbs.
- Attendees at the HHW collection delivered 6,277 pounds of waste from approximately 100 households, along with about 6 tons of BOPAE waste.
- The City's Litter Crew collected 6,528 bags of litter, or an estimated 65 tons.
- 6.B Do you have an ordinance or other regulatory mechanism requiring: Permanent water quality riparian buffers?

A water quality buffer zone (WQBZ), measured from the top of bank, is required as follows:

- stream with drainage area less than 1 square mile: 30' wide
- stream with drainage area greater than or equal to 1 square mile, and/or water with unavailable parameters: 60' wide
- wetland: 30' wide around perimeter

Variances are permitted with approval from the Stormwater Violations Appeals Board.

7.A As applicable, have stormwater related operation and maintenance plans that include information related to maintenance activities, schedules and the proper disposal of waste from structural and non-structural stormwater controls been developed and implemented at the following municipal operations: (Items Marked "No")

The City does not operate snow disposal areas or waste disposal, storage, and transfer stations.

8.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 number of volunteers participating in all activities rose from 205 last year to 231 this year, or 13%. Volunteer hours rose 20% over the same period, from 523 to 627. This indicates that our program continues to be effective in increasing active participation in our stormwater program.

Our waste collection efforts all yielded increased results as well. While the number of vehicles attending the HHW collection event was approximately the same, the 6,277 pounds of waste collected was a 260% increase compared to last year's 1,745 pounds. The BOPAE waste collection totals also increased significantly, from 9,228 to 21,806 pounds, or 136%. The City's Litter Crew collected 6,528 bags of trash, an increase of 132% over the 2,814 collected last year.

For the overall stormwater program, 90% of the Program BMP Milestones were fully met, 3% were partially met, and 6% were not met. The partially met items included revising and implementing City Municipal Operations SOPs and adding hot spots to the outfalls map. The unmet Milestones included revising the PIE plan, providing targeted education to specified groups, coordinating with first responders, and revising the Dry Weather Screening to target hot spots for more frequent inspections.

The unmet and partially met Milestones are all very staff-intensive. Staff reviewed 30 site plans and had 36 active construction sites greater than one acre during the Annual Report period, which reduced the time available to address the Milestones. Staff will work on these Milestones in the next permit year as time allows.