



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: City of Goodlettsville		MS4 Permit Number: TNS075345
Contact Person: Warren Garrett		Email Address: wgarrett@goodlettsville.gov
Telephone: (615) 859-2740		MS4 Program Web Address: www.goodlettsville.gov
Mailing Address: 105 S. Main Street		
City: Goodlettsville	State: Tennessee	ZIP code: 37072

What is the current population of your MS4? 15,921

What is the reporting period for this annual report? July 1 2016 to June 30 2017

2. 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, 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/](http://tdeconline.tn.gov/dwr/))? If yes, attach a list.  Yes  No
- B. Are there established and approved TMDLs (<http://www.tn.gov/environment/article/wr-ws-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 Exceptional Tennessee Waters (ETWs - [http://environment-online.tn.gov:8080/pls/enf\\_reports/f?p=9034:34304:4880790061142](http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9034:34304:4880790061142))? If yes, attach a list.  Yes  No

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: Our annual stream assessment and IDDE during dry weather screening allow us to monitor outfalls and identify possible problems. Furthermore, we are continuing an aggressive educational program through local stream videos produced via drone and underwater cameras to be presented on our website for local residents and schools. We hope that the interest will be further reaching to all of Tennessee educational facilities. We also have implemented all six BMP's required through the EPA.

1. Illicit Discharge Detection and Elimination

2. Construction Site Runoff Control

3. Pollution Prevention/Good Housekeeping

4. Post-Construction Runoff Control

5. Public Education and Outreach

6. Public Participation/Involvement

IDDE is performed through contract with Western Kentucky as well as city staff and citizens through twice annual stream and community cleanups.

Construction site runoff control is monitored through weekly inspections of approved site plan BMP's. We also require a pre-con meeting to discuss site compliance expectations and procedures. We have developed a checklist for issuance of an LDP that includes an Long Term Maintenance Agreement to be filed with the appropriate Deeds office.

Pollution Prevention/Good Housekeeping is accomplished through a monthly inspection of all city facilities by selected employees, in turn they provide the stormwater inspector with a monthly report. We also provide for annual good housekeeping training via MTAS to first responder employees in the Fire Dept., Parks Dept., Sewer Dept., and Streets Dept. This will be changing slightly in the future with training occurring every permit cycle instead of annual, except for new employees. Our SOP covers procedures.

Yes       No

Post-Construction runoff control is currently accomplished through LTMA or Long Term Maintenance Agreements filed with the Deeds office. This requires owners or HOA's to provide quarterly inspections of site stormwater facilities as well as submit annual inspections to the city stormwater inspector for compliance.

Public Education and Outreach is one of our largest accomplishments although we are taking a different approach in order to more closely align this BMP with the Public Participation/Involvement. We believe that front line education through participation and involvement is the best defense for protecting our local watersheds. We currently host and facilitate monthly Mid Tennessee Stormwater Group meetings to network with other local MS4's, we also have coordinated a local Community Advisory Panel/Goodlettsville Hearing Authority which handles ordinance review as well as any appeals of our stormwater utility or enforcement issues. We provided a WET program for local schools and are currently working with Gallatin to possibly provide education credits through participation of all Sumner County schools in the WET program provided they provide us with the measurable data. We also provide education through the TAB program, tailgate vehicle wrap information, utility bill memos and our website. Facebook is now a tool we use for Mid Tennessee Stormwater group.

Public Participation/Involvement is as stated above very much included in the education and outreach. Participation is accomplished through monthly meetings that are open to the public and advertised via website of dates, location and time. We have hosted twice annually community cleanup events, utilize Adopt-A-Street, Goodlettsville Hearing Authority, /Community Advisory Panel.

3. 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  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: Through Public Education we are targeting larger groups with specific targets that can help prevent stormwater runoff pollution. This is in addition to Hotspots and routine inspections for those sites. Below is a list of targeted pollutants that residents can help eliminate through educational materials provided.

1. Use fertilizers sparingly, keep sidewalks, gutters and driveways clean.

2. Never dump anything down stormdrains!

3. Vegetate bare spots in your yard.

4. Compost yard waste.

Yes  No

5. Direct downspouts away from paved surfaces.

6. Use a car wash facility instead of your driveway.

7. Check your car for leaks and recycle your used oil.

8. Pick up after your pet.

9. Have your septic tank pumped and inspected regularly.

10. Follow label instructions and use least toxic pesticides.

The city has also installed a new used oil recycling facility at the Public Works Dept. This is to help avoid possible illicit discharge from illegal dumping down storm drains

C. Do you have a webpage dedicated to your stormwater program? If yes, provide a link/URL: www.goodlettsville.gov/publicworks/stormwater  Yes  No

D. Summarize how you advertise and publicize your public education, outreach, involvement and participation opportunities: Goodlettsville Website, Facebook, TAB Radio Broadcast, Notify Me, Chamber of Commerce, Tailgate vehicle advertisement and email.

E. Summarize the public education, outreach, involvement and participation activities you completed during this reporting period: Public Education and Outreach is one of our largest accomplishments although we are taking a different approach in order to more closely align this BMP with the Public Participation/Involvement. We believe that front line education through participation and involvement is the best defense for protecting our local watersheds. We currently host and facilitate monthly Mid Tennessee Stormwater Group meetings to network with other local MS4's, we also have coordinated a local Community Advisory Panel/Goodlettsville Hearing Authority which handles ordinance review as well as any appeals of our stormwater utility or enforcement issues. We provided a WET program for local schools and are currently working with Gallatin to possibly provide education credits through participation of all Sumner County schools in the WET program provided they provide us with the measurable data. We also provide education through the Tab program and our website. Facebook is now a tool we use for Mid Tennessee Stormwater group. The utility bills now are being utilized for short, water quality messages.

Public Participation/Involvement is as stated above very much included in the education and outreach. Participation is accomplished through monthly meetings that are open to the public and advertised via website of dates, location and time, we have hosted two separate community/stream cleanup events in fall of 2016 and spring of 2017, the events have been very successful with a total of 84 participants jointly and over 5 tons of debris removed from our creeks and roadways. We also have implemented an Adopt a Street program which is very successful.

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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: Community/stream cleanup events in fall of 2016 and spring of 2017, the events have been very successful with a total of 84 participants jointly and over 5 tons of debris removed from our creeks and roadways. The volunteer rate is climbing and the city is now providing lunch for all volunteers in order to socialize and network. We have improved our ordinance with the addition of a "Maintenance" section through MTSG meetings and annual review of our stormwater ordinance via our Community Advisory Panel. We improved outreach with TEC 100K tree day by purchasing advertisement spot of one week on a digital billboard and distributed over 1900 trees locally. We have four business's with volunteers which pick up litter on Conference Drive, Northcreek Drive and East Cedar on a quarterly basis.

4. Illicit 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? 131 outfalls have been identified for our system. We have lost a good portion of our GIS data, and hired an intern this last summer to re-collect the data. It is currently being transferred onto the GIS mapping for the city.
- 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: IDDE is conducted annually through WKU students as well as twice annually with stream cleanup events. We also utilize the citizens through our stormwater pollution hotline via our website, email or reporting form.  Yes  No
- F. How many illicit discharge related complaints were received this reporting period? 6
- G. How many illicit discharge investigations were performed this reporting period? 6
- H. Of those investigations performed, how many resulted in valid illicit discharges that were addressed and/or eliminated? 6

5. Construction 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

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- 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
- E. How many construction sites disturbing at least one acre or greater were active in your jurisdiction this reporting period? 9
- F. How many active priority and non-priority construction sites were inspected this reporting period? 57
- G. How many construction related complaints were received this reporting period? 2

6. Permanent Stormwater Management at New Development and Redevelopment Projects (Section 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  No  
 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: 18-506. Buffer Zones

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. Buffer width depends on the size of a drainage area. Streams or other waters with drainage areas less than one (1) square mile will require buffer widths of thirty (30) feet minimum. Streams or other waters with drainage areas greater than one (1) square mile will require buffer widths of sixty (60) feet minimum. The sixty (60) feet criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than thirty (30) feet at any measured location. The MS4 must develop and apply criteria for determining the circumstances under which these averages will be available. A determination that standards cannot be met may not be based solely on the difficulty or cost associated with implementation. Every attempt should be made for development and redevelopment activities not to take place within the buffer zone. If water quality buffer widths as defined above cannot be fully accomplished on-site, the MS4 must develop and apply criteria for determining the circumstances under which alternative buffer widths will be available. A determination that water quality buffer widths cannot be met on site may not be based solely on the difficulty or cost of implementing measures, but must include multiple criteria, such as: type of project, existing land use and physical conditions that preclude use of these practices.

#### Buffer Zone Requirements

(a) "Construction" applies to all streams adjacent to construction sites, with an exception for streams designated as impaired or Exceptional Tennessee waters, as designated by the Tennessee Department of Environment and Conservation. A 30-foot natural riparian buffer zone adjacent to all streams at the construction site shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state located within or immediately adjacent to the boundaries of the project, as identified using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals, TN Rules Chapter 0400-40-17). Buffer zones are not primary sediment control measures and should not be relied on as such. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be preserved between the top of stream bank and the disturbed construction area. The thirty (30) feet criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than (fifteen) 15 feet at any measured location.

Yes

No

Buffer zone requirements for discharges into impaired or high quality waters:

A sixty (60) foot natural riparian buffer zone adjacent to the receiving stream designated as impaired or high quality waters shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified on a 7.5-minute USGS quadrangle map, or as determined by the director. Buffer zones are not sediment control measures and should not be relied upon as primary sediment control measures. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be established between the top of stream bank and the

C. What is the threshold for development and redevelopment project plans plan review (e.g., all projects, projects disturbing greater than one acre, etc.)? 18-505. Stormwater system design: Construction and Permanent stormwater management performance standards

(1) Applicability

This section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, land disturbance applications and grading applications. The requirements in this section shall apply to any new development or redevelopment site that meets one or more of the following criteria:

(a) One (1) acre or more;

(1) New development that involves land disturbance activities of one (1) acre or more;

(2) Redevelopment that involves other land disturbance activity of one (1) acre or more;

(b) Developments and redevelopments less than one acre of total land disturbance may also be required to obtain authorization under this ordinance if:

(1) The administrator has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;

(2) The administrator has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to waters of the state; or

(3) Any new development or redevelopment, regardless of size, that is defined by the administrator to be a hotspot land use.

(c) Other options:

(1) Change in elevation of property.

(2) Any land disturbance that requires coverage under a TDEC Construction General Permit.

(3) Any disturbance that requires coverage under a TDEC ARAP.

D. How many development and redevelopment project plans were reviewed for this reporting period? 10

E. How many development and redevelopment project plans were approved? 9

F. How many permanent stormwater related complaints were received this reporting period? 1

G. How many enforcement actions were taken to address improper installation or maintenance? 1

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. Stormwater 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

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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

8. Reviewing 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. We are continuing with the W.E.T. program at this time, however we are looking at providing credits to Sumner County Schools if they make W.E.T mandatory for curriculum. We have added a new Maintenance Section to our Stormwater Ordinance.

Changes to the program as required by the division to satisfy permit requirements. Updating and revision of our Stormwater Ordinance through Community Advisory Panel.

Information (e.g. additional acreage, outfalls, BMPs) on newly annexed areas and any resulting updates to your program. NA

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. Our program is working very efficiently and seems to be accepted as appropriate by the residents and business owners. We have minor hiccups in new development, but not repeated issues. We are currently initiating an addition to our enforcement ordinance that will include court summons/citation for issues that are not compliant within two Written Notices. We also are implementing a stated 100 Micron Particle size for permanent sediment removal since that is a very common question from engineers design requirements during plan review. We are implementing removal of vegetation debris during our community stream cleanups, this is acceptable maintenance since we are not using city personnel, only volunteers, and no equipment enters the creeks. Since our recent rain events have been higher rain quantities in a shorter amount of time, we have experienced localized flooding, we hope this effort will not only improve the efficiency of our stream flow, but also provide a good education and public participation activity. Our program now provides volunteer hours for the students entering the community colleges under the States new ACHEIVES program. Our goal is to combine much of the Public Participation with Public Education and Outreach, one way of doing this is our current contract with WKU to produce 10 minute educational videos with 2 minute trailers which will be accessible via website to the public/school systems. We want to provide videos ranging from water quality, impairments, wildlife, litter, etc. WKU has agreed to at least two videos per year. These will be presented also at Movies in the Park every summer at Moss Wright.  Yes  No

9. Enforcement Response Plan (Section 4.5)

A. Have you implemented an enforcement response plan that includes progressive enforcement actions to address non-compliance, and allows the maximum penalties specified in TCA 68-221-1106? If no, explain. \_\_\_\_\_  Yes  No

B. As applicable, identify which of the following types of enforcement actions (or their equivalent) were used during 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>	<u>Construction</u>	<u>Permanent Stormwater</u>	<u>Illicit Discharge</u>	<u>In Your ERP?</u>	
Verbal warnings	# <u>24</u>	# <u>0</u>	# <u>1</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Written notices	# <u>2</u>	# <u>0</u>	# <u>3</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Citations with administrative penalties	# <u>0</u>	# <u>0</u>	# <u>0</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Stop work orders	# <u>3</u>	# <u>0</u>	# <u>0</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Withholding of plan approvals or other authorizations	# <u>1</u>	# <u>0</u>	# <u>0</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Additional Measures	# <u>0</u>	# <u>1</u>	# <u>0</u>	Describe: <u>Court Summons</u>	

C. Do you track instances of non-compliance and related enforcement documentation?  Yes  No

D. What were the most common types of non-compliance instances documented during this reporting period?  
Tracking Sediment offsite, illicit discharges (Discolored Water)

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. Report provided by Western Kentucky University (attached)

B. Summarize any non-analytical monitoring activities (e.g., planning, collection, evaluation of results) performed during this reporting period. None

C. If applicable, are monitoring records for activities performed during this reporting period submitted with this report.  Yes  No

11. Certification

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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."*

Tim Ellis/City Manager  
Printed Name and Title

  
Signature

7-12-17  
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

5/5/2016	Customer Appreciation CEC	Nashville
5/6/2016	Meeting with WKU (Dr. Taylor)	Goodlettsville Public Works 3 Hrs.
5/9/2016	Public Outreach for Education WET	Sumner Schools 6 Hrs.
5/11/2016	Public Outreach for Education WET	Sumner/Robertson Schools 6 Hrs.
5/12/2016	Public Outreach for Education WET	Sumner Schools 6 Hrs.
5/14/2016	Water Quality Booth	Portland Strawberry Festival 5 Hrs.
5/16/2016	EPA Municipal Wet Weather Conference	Nashville
5/17/2016	EPA Municipal Wet Weather Conference	Nashville
5/18/2016	EPA Municipal Wet Weather Conference	Nashville
5/26/2016	Chamber of Commerce Luncheon	
	June-16	
6/3/2016	Water Quality Meeting	Vol-State (Parris Powers/Dr. Taylor)
6/4/2016	Experience Goodlettsville	Moss Wright Park Visitor Center
6/8/2016	MTSG Monthly Meeting	Black-eyed Pea, Hendersonville 11:30am
6/9/2016	Mid-Tn Erosion Grand Opening	658 Murfreesboro Rd. Nashville
6/13/2016	<u>Water Quality Meeting</u>	Vol-State (Parris Powers)1pm
6/23/2016	Chamber of Commerce Luncheon	
6/24/2016	WET Program	
6/29/2016	Pervious Pavement and Maintenance	Moss Wright Park Visitor Center 9am-3:30pm
	July-16	Murfreesboro
7/13/2016	<u>MTSG Monthly Meeting</u>	Clarksville Tn. 11:00am
7/15/2016	Stream Watch quarterly	Vol-State(cancelled)
7/20/2016	<u>MS4 Meeting</u>	Gallatin (Ocharley's)
7/28/2016	Slaters Creek Meeting (Jim Brinkley)	White House Tn. 11am
7/28/2016	Chamber of Commerce Luncheon	
7/29/2016	Vol-State Meeting (streamwatch)	Meet New Chemistry Professor for program
	August-16	
8/1/2016	Ecoli testing meeting	White House (Dr. Taylor)10am
8/3/2016	<u>MTSG Monthly Meeting</u>	Crescent City Po Boys-Gallatin, TN.
8/9/2016	Adopt A Street	Marriott
8/11/2016	<u>Ecoli sampling for creeks</u>	Goodlettsville
8/20/2016	<u>Urban 5K Runoff</u>	Nashville Booth Event
8/24/2016	<u>Ecoli sampling for creeks</u>	Goodlettsville
8/25/2016	<u>IOSHA Meeting</u>	Public Works Office 8:30 am

8/25/2016	Chamber of Commerce Luncheon	
8/31/2016	<u>Ecoli sampling for creeks</u>	Goodlettsville
	September-16	
9/1/2016	<u>Ecoli sampling for creeks</u>	Goodlettsville
9/7/2016	<u>Ecoli sampling for creeks</u>	Goodlettsville
9/12/2016	<u>MTSG Monthly Meeting</u>	Hendersonville Cracker Barrel 9am
9/13/2016	<u>Ecoli sampling for creeks</u>	Goodlettsville
9/14/2016	<u>Ecoli sampling for creeks</u>	Goodlettsville
9/14/2016	<u>TNSA Quarterly</u>	Franklin Tn. CEC
9/15/2016	<u>Ecoli sampling for creeks</u>	Goodlettsville
9/22/2016	Chamber of Commerce Luncheon	
9/23/2016	Distributed 1000 Stormwater Bookmarks to Publi	Goodlettsville PUBLIX
9/28/2016	<u>Hand Delivered Annual Stormwater Report</u>	TDEC
9/29/2016	<u>WKU Water Quality Meeting</u>	Bowling Green 11am-2pm
	October-16	
10/5/2016	<u>MTSG Monthly Meeting</u>	Dickson TN. 9am
10/11/2016	<u>WKU Water Quality Meeting</u>	Bowling Green 9am-12pm
10/15/2016	<u>Stream Cleanup Event</u>	Mansker's Creek 9am-12pm
10/18/2016	<u>TNSA Conference</u>	Fall Creek Falls
10/19/2016	<u>TNSA Conference</u>	Fall Creek Falls
10/20/2016	<u>TNSA Conference</u>	Fall Creek Falls
10/22/2016	Adopt A Street	Trent Sipes/Edward Jones
10/27/2016	Chamber of Commerce Luncheon	State of the City address (Tim Ellis)
	November-16	
11/2/2016	<u>MTSG Monthly Meeting</u>	Goodlettsville TN.
11/8/2016	<u>Drainage Law (John Charlson)</u>	City Hall (MTAS) 8 am
11/8/2016	<u>Good Housekeeping Training</u>	Visitors Center Moss Wright Park 10 am
11/8/2016	Adopt A Street	Marriott
11/9/2016	<u>IDEC Meeting EFO</u>	Nashville EFO 10 am
11/10/2016	<u>Certified Letter Wynwood Hills HOA</u>	Goodlettsville Subdivision
11/30/2016	<u>TNSA Quarterly</u>	Murfreesboro
	December-16	
12/13/2016	<u>TCAPWA Meeting</u>	General Jackson 11-3pm
12/14/2016	<u>MTSG Monthly Meeting</u>	Gallatin

12/22/2016

Chamber of Commerce Luncheon

January-17

1/4/2017

Certified Letter Wynwood Hills HOA

Goodlettsville Subdivision

1/5/2017

MTAS NOI Video Conference

Nashville EFO

1/9/2017

Certified Letter Jim Hysen

Allen Rd. Detention Pond

1/9/2017

Certified Letter Brock Rust

True Vine

1/11/2017

MTSG Monthly Meeting

Gallatin Civic Center 10am-12pm

1/12/2017

SWPPP Training

Gallatin Civic Center 9am-12pm

1/12/2017

Microbial Source Tracking for Creeks

Webinar 2pm-2:30pm

1/15/2017

Received Used Oil Grant Offer

TDEC

1/17/2017

Mansker Creek Rehab Meet

Visitors Center

1/24/2017

Court Citation

J. Hysen (non-compliance)

1/26/2017

Chamber of Commerce Luncheon

1/27/2017

TDEC/TWRA Education

Station Camp Middle School 9 am-12 pm

1/31/2017

Mansker Creek Rehab Meet

Alec Norman Public Works 3 pm - 4 pm

1/31/2017

Senior Citizens Luncheon

318 N. Main Event Center (100K tree day)

February-17

2/7/2017

WKU Water Quality Meeting

Bowling Green 9am-12pm

2/8/2017

INSA Quarterly

Old Castle Plant 10 am

2/9/2017

Used Oil Grant Contract Received

TDEC

2/10/2017

Used Oil Recycling Meeting

TDEC EFO Columbia TN. 9am-12pm

2/13/2017

Bus for Sale Stormwater Meeting

City Hall Engineer office 10:30-11:00

2/17/2017

CAP Meeting

Goodlettsville, 11am

2/23/2017

Chamber of Commerce Luncheon

2/24/2017

TEC 100K Tree Giveaway

Goodlettsville PW 8-5

2/25/2017

TEC 100K Tree Giveaway

Goodlettsville PW 9-11

2/26/2017

TEC 100K Tree Giveaway

Portland TN, Highland Academy 8am-9

2/28/2017

Land Disturbance Pre-Development

Dean Patel, PW Office 10:30-11

March-17

3/8/2017

MTSG Monthly Meeting

Gallatin Civic Center 9am-12pm

3/14/2017

OHM Meeting (Janette Ave.)

City Hall 2pm-3pm

3/16/2017

CAP Meeting

Goodlettsville, 9-10am

3/25/2017

Community Cleanup Day

Public Works Department 9-noon

3/30/2017

Chamber of Commerce Luncheon

3/30/2017	<u>Microbial Source Tracking Webinar</u>	2pm - 3pm
April-17		
4/4/2017	<u>Educational Video/SWMP/Flyer</u>	WKU 9:30-12:00
4/5/2017	Lifeguard Safety Confined Spaces	Public Works 8:30-9:00
4/5/2017	<u>Webinar "Neighborhood Voices"</u>	11am-12pm
4/7/2017	GEO-JOBE GIS Web	Phone GIS 9am
4/12/2017	<u>MTSG Monthly Meeting</u>	Gallatin Civic Center 9am-12pm
4/18/2017	Duncan-Parnell	Phone GIS 9am
4/18/2017	Copper Creek Walk Through	Phase 2-1
4/19/2017	<u>Mitigation Training</u>	2022 Blanton Drive Murfreesboro, TN 37129
4/19/2017	TCAPWA Meeting	Hermitage
4/20/2017	<u>CAP Meeting</u>	Goodlettsville, 9-10am
4/27/2017	<u>Educational Announcement</u>	Utility Bills
4/27/2017	<u>First Aid Training</u>	Public Works 1-3pm
4/27/2017	Chamber of Commerce Luncheon	
May-17		
5/1/2017	Knowbeforetraining	Webinar 2pm-2:30pm
5/10/2017	MTSG Monthly Meeting	Gallatin Civic Center 9am-12pm
5/11/2017	Plan Review Commercial Sites	City Hall 8:30-11am
5/15/2017	IECA Conference	Charleston SC
5/16/2017	IECA Conference	Charleston SC
5/17/2017	IECA Conference	Charleston SC
5/18/2017	CAP Meeting	Goodlettsville, 9-10am
5/24/2017	TNESP Level 1 Re-Cert	Nashville
5/25/2017	Chamber of Commerce Luncheon	
5/30/2017	Plan Review Commercial Sites	City Hall 9am
5/31/2017	WKU Water Quality Meeting	Public Works 12:30-3:00
June-17		
6/1/2017	Pre-Con with OHM	City Hall Conference Room
6/2/2017	WKU Water Quality Meeting	Public Works 12:30-3:00
6/7/2017	MTSG Monthly Meeting	Gallatin Civic Center 9am-12pm
6/11/2017	Achieve Students (litter removal)	North Creek Business Park (Manskers)
6/15/2017	CAP Meeting	Goodlettsville, 9-11am
6/29/2017	Chamber of Commerce Luncheon	

**SWMP**  
**Review and Edit**

2016/17

Warren Garrett

# City of Goodlettsville's Stormwater Management Plan (SWMP)

City of Goodlettsville's Stormwater Program

TNS-075345

PUBLIC WORKS DEPARTMENT  
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*AS OF OCTOBER 2014  
REVISED MARCH 17, 2017*

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# City of Goodlettsville's Stormwater Management Plan (SWMP)

## Introduction

This Stormwater Management Plan (SWMP) is required under U.S. Environmental Protection Agency (U.S. EPA) Phase II stormwater regulations, promulgated under the Federal Clean Water Act (CWA). These regulations require the City of Goodlettsville to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit. The permit covers stormwater discharges associated with the municipality's separate storm sewer system (MS4) and requires the City to report annually on its progress. The latest stormwater permit issued by TDEC is valid from October 1, 2010 through September 1, 2015.

Comment [WG1]: Change to February 8, 2017 through September 30, 2021

U.S. EPA's Stormwater Phase II Final Rule establishes that an MS4 stormwater management program is intended to improve the quality of the nation's waterways. Common stormwater pollutants include oil and grease from roadways and parking lots, pesticides, herbicides and fertilizers from lawns, sediment from construction sites and trash. Pollutants are deposited into waterways, impacting beneficial uses of the resources and interfering with the habitat for fish, aquatic organisms and wildlife.

After years of water sampling testing analysis, the State of Tennessee has determined each stream within Goodlettsville's jurisdiction is impaired with either e.Coli, siltation and/or as a result of habitat alterations. Based on these test results and the City's proximity to Nashville, Goodlettsville was charged with implementing a stormwater, or water quality program. In 2003, Goodlettsville implemented its stormwater program. The City of Goodlettsville encompasses approximately 14 square miles with an urban growth boundary of almost 4 miles and a population of approximately 16,000 citizens.

The purpose of the SWMP is to identify pollutant sources potentially affecting the quality and quantity of stormwater discharges, to provide Best Management Practices (BMPs) for municipal and development activities, and to provide measureable goals to assess the effectiveness of implemented BMPs.

## Potential Sources of Pollution

Activity/Source	Pollutant(s) of Concern
Animal/pet waste	e. Coli
Construction Activities	Sediment, concrete, paint, chemicals, debris
Erosion	Sediment, organic matter

City of Goodlettsville's Stormwater Management Plan (SWMP) rev. 3/2017

Food Service Operations	Wash water, oil, grease, food residue
Grounds Maintenance/Irrigation Operation	Herbicides, pesticides, fertilizers, animal waste
Impervious Areas	Increased flows and pollutant loading, oil, grease, litter, heavy metals
Outdoor Storage of Uncovered and Improperly Stored Materials	Litter, debris, sand, asphalt, soil, pesticides, herbicides, fertilizer, paint, solvents, fuel
Sewer Line Blockages	Raw sewage, e.Coli
Vehicle, Equipment and Materials Washing	Cleaning products, oil, grease, vehicle chemicals and fluids

### Minimum Control Measures

Minimum Control Measures are aimed at achieving improved water quality. The City implements BMPs for the following six minimum control measures to remain in compliance with stormwater program requirements:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff
5. Post-Construction Stormwater Management with New and Re-Development
6. Pollution Prevention/Good Housekeeping for Municipal Operations

#### 1. Public Education and Outreach

Person Responsible: ~~Public Works Superintendent~~

**Comment [WG2]:** Change to Stormwater Coordinator

The City of Goodlettsville's public information and education plan is comprised of various components (printed materials distributed at information tables and events; PSAs, Park/City events, and the City's website; electronic media utilized for eblasts, texting, emails, and website) with the goal of educating the citizens on the effects of actions taken on stormwater pollution and water quality.

**Comment [WG3]:** Add Social Media

The City of Goodlettsville targets all age groups at stream clean-ups, at public meetings and workshops on a monthly basis and as needed, at teacher in-service workshops, and through the Stream Watch program. Topics covered include stormwater, water quality, environmental education, ordinances, pollution prevention, etc. The general public is notified through local newspapers, eblasts, email lists, flyer/announcement distribution to public information tables, website

**Comment [WG4]:** Remove, Stream Watch is dissolved

postings, slides on local access channels and promotion of future events at current events.

Table 1-1

BMP Implementation: Pubic Education and Outreach

Year and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, continuously	Educate general public about stormwater	Continue development and distribution of materials through information tables, website, eblasts, workshops, etc. Development of Public Information and Education Plan (PIE) and continue with hot spot/priority area and Stream Watch programs.	Number of items created and distributed. PIE document created. Hot spot/priority area and Stream Watch program documentation.	Goodlettsville Public Works for all programs and co-manager with the City of Millersville for the Stream Watch program.
1 through 5, as scheduled	Classroom Education	Provide teacher in-service workshops on environmental education that correlates to the State's current educational standards. Provide information on the City's website and have Teacher Tubs available. Engagements/ workshops with classrooms/school groups/ homeschool and Scouts. Work alongside other local MS4s, Cumberland River Compact, Project WET, Project Learning Tree, Growing Up WILD, GLOBE, State Forestry Division and local schools and universities.	Continue with teacher in-service workshops and look at possible new workshops (e.g. PROJECT WET, PROJECT LEARNING TREE, GLOBE, ETC.) to offer, classroom speaking engagements, Scout badge programs, and participation in outreach events. Work alongside schools to offer environmental education opportunities. Assist Volunteer State Community College with development of Technical Certificate Program to address stormwater, water, and sewer operations.	Public Works Department

- Comment [WG5]: Remove
- Comment [WG7]: Remove
- Comment [WG6]: Remove
- Comment [WG8]: Stormwater program
- Comment [WG11]: Public Works Stormwater program

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Comment [WG9]: Provide teacher access to water quality videos created locally in Goodlettsville by Western Kentucky University. Teachers must fill out brief survey for tracking of distribution in order to view videos. Videos will be accessible on our website for local schools, colleges and universities. We will continue to work alongside other MS4's through monthly Stormwater Meetings.

Comment [WG10]: Measurable goals will be tracked through online questionnaire that will be filled out by educational facility to access water quality videos for classroom use. If school wishes to have the video presented in person, the WKU masters students will provide video and narration.

1 through 5, as needed	Restaurants and Food Service Establishments	Communicate standards with respect to site cleanliness and stormwater controls including information on grease traps, waste disposal and routine inspections.	Continue distribution of requirements with respect to stormwater management at restaurants and food service establishments.	Sewer Department
1 through 5, continuously	Hotline	The City has a hotline number available with voicemail ((615) 859-2740). When an incident is received, it is logged into a software database program in order to track and appropriate personnel are notified. Also have reporting capabilities set up on City's website which are emailed to select personnel when submitted.	Provide a phone line with voicemail capabilities and a computerized tracking system to receive stormwater-related inquiries. Continue with existing hotline, website, email, and database reporting capabilities.	Public Works and Police Departments
1 through 5, as needed	Storm Drain Labeling	Label storm drains with metal disks using appropriate adhesive. These disks indicate runoff entering drain goes directly to the stream (and is not treated).	Number of storm drains labeled	Fire, Parks, Administration, Public Works, citizen and volunteer groups

## 2. Public Involvement and Participation

Person Responsible: Public Works Superintendent

One of the main goals of the City's stormwater program is to not only educate the public, but to also get them involved in helping improve local water quality. This can be completed by attending workshops and taking the information and applying it at home or simply participating in stream clean-up and/or World Water Monitoring Day events.

The City encourages participation within its established Stream Watch program to help foster support for increased water quality and the City's overall stormwater program. Participation by citizens ensures the program reflects community values and priorities and thus has the highest potential for success.

Comment [WG12]: Stormwater Coordinator

Comment [WG13]: Remove

Comment [WG14]: Remove

Table 2-1

### BMP Implementation: Public Involvement and Participation

Year and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s)
-------------------	-----	------------------------	--------------------	--------------------------

				Responsible
1 through 5, as needed	Storm Drain Labeling	Label storm drains with metal disks using appropriate adhesive. These disks indicate runoff entering drain goes directly to the stream (and is not treated).	Number of storm drains labeled	Fire, Parks, Administration, Public Works, citizen and volunteer groups
1 through 5, as scheduled	Workshop Offerings	Coordinate workshops geared towards homeowner education and participation	Number of workshops, number of participants	Public Works, Parks, Cumberland River Compact, other MS4s
1 through 5, quarterly and as needed	Stream Watch	Continue with Stream Watch program's quarterly (and as-needed) meetings	Number of participants, review of ordinances, number of stream clean-ups and other outreach events coordinated by committee	Cities of Goodlettsville and Millersville's stormwater departments
1 through 5, as scheduled	Outreach Events	Stream clean-ups, Earth Day, workshops, World Water Monitoring Day, etc.	Number of participants, materials created and distributed, test kits ordered, etc.	Parks, Public Works, Administration, non- profits and MS4s.
1 through 5, monthly and as needed	Monthly Stormwater Meetings	Coordinate routine stormwater meetings with other MS4s and the general public.	Number of people in attendance	Public Works

Comment [WG15]: Remove

Comment [WG16]: Remove All

Comment [WG17]: Remove this and add Walk Across Summer events, monthly Community Advisory Panel with citizen involvement

Comment [WG18]: Remove

Comment [WG19]: Stormwater Coordinator

Note, the website is utilized to send eblasts, emails, texts, and houses static information on public outreach involvement opportunities.

3. Illicit Discharge Detection and Elimination

Persons Responsible: Inspector, Public Works Superintendent

The goal of this minimum control measure is to reduce pollutants in stormwater runoff to receiving waters. It requires the development and implementation of a system to identify and eliminate sources of illicit discharge and illegal dumping.

City of Goodlettsville's Stormwater Management Plan (SWMIP) rev. 3/2017

The permit requires the City of Goodlettsville to develop, implement, and enforce a program that detects and eliminates illicit discharges as defined in 40 CFR §122.26(b)(2). The City must develop a storm sewer system map showing the location of all outfalls as well as the names and locations of all waters receiving discharges from the indicated outfalls and develop a program addressing non-stormwater discharges, including illegal dumping, hot spot/priority areas, and illegal discharges into the local water bodies.

Table 3-1

BMP Implementation: Illicit Discharge Detection and Elimination

Year and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, as needed	Outfall Inventory, Stream Assessments, and Dry Weather Screenings	Continue with mapping and monitoring plan already in place.	Implement ORI and SCORE sheet data and photos into GIS system.	Public Works
1 through 5, continuously	Hotline, Website, Email	The City has a hotline number available with voicemail ((615) 859-2740). When an incident is received, it is logged into a software database program in order to track and appropriate personnel are notified. Also have reporting capabilities set up on City's website which are emailed to select personnel when submitted.	Provide a phone line with voicemail capabilities and a computerized tracking system to receive stormwater-related inquiries. Continue with existing hotline, website, email, and database reporting capabilities.	Public Works and Police Departments
1 through 5, annually	Employee Training	Continue with annual (and as-needed) employee stormwater training	Number of personnel attending meetings	Public Works with assistance from Cumberland River Compact or other agencies
1 through 5, as needed	Storm Drain Labeling	Label storm drains with metal disks using appropriate adhesive. These	Number of storm drains labeled	Fire, Parks, Administration, Public Works, citizen and

Comment [WG21]: Stormwater Program

Comment [WG20]: Remove

Comment [WG22]: Permit Cycle

Comment [WG23]: Permit cycle employee training or within 6 months of hire.

Comment [WG24]: MTAS

			disks indicate runoff entering drain goes directly to the stream (and is not treated).		volunteer groups
2 through 5, e. Coli: June – September 2011, siltation test date TBD	TMDL Monitoring per TDEC's Protocols		Collect and process water samples on 303(d) e.coli impaired streams per the TDEC-approved City's TMDL Monitoring Plan. Streams impaired for siltation and/or habitat alterations biological stream sampling is performed utilizing the SQSH method.	Number and quality of samples collected and processed by State-certified laboratory.	Public Works, Western Kentucky University and/or other partners following TDEC protocols and requirements
1 through 2, January 2011	Ordinance		Review IDDE section within current stormwater ordinance, develop Enforcement Response Plan (ERP)	Development of ERP	Public Works
2, as needed	Ordinance		Update stormwater ordinance to enhance IDDE controls and ERP, if needed. Continue use of ERP	Continue enforcement of IDDE as outlined within the stormwater ordinance. Number of NOV's issued and number of complaints received and addressed by staff.	Planning, Codes, Public Works, Administration
1 through 5, quarterly and as needed	Hot Spot/Priority Area Identification, Inspection, and Implementation		Utilizing EPA's Hot Spot Inspection Sheet, continue to look for established areas that may fall underneath this category. If a business is deemed a hot spot/priority area, then it will become part of the City's	Number of areas identified as Hot Spots or Priority Areas.	Public Works

Comment [WG25]: Remove

Comment [WG26]: Remove

Comment [WG27]: 1 through 5

Comment [WG29]: Review with Community Advisory Panel and advise on perceived changes

Comment [WG28]: Remove

Comment [WG31]: Public Works Stormwater Program

Comment [WG30]: Remove

City of Goodlettsville's Stormwater Management Plan (SWMP) rev. 3/2017

			monitoring program. Suggested water-quality BMPs are provided to these areas.		
1 through 5, monthly and as needed	Routine Stormwater Meetings/Workshops	Coordinate monthly stormwater meetings with other MS4s and the general public.		Number of people in attendance	Public Works
1 through 5, bi-weekly and as needed	Street Sweeping	Continue utilization of Street Sweeping Corp. of America to sweep main streets within City on a regular basis and as needed.		Regular reporting received from SCA and Public Works Staff. As of January 2013, SCA will be utilized on an as-needed basis. Reports provided from staff on cubic yards of debris collected and streets swept under City's program.	Public Works

**Comment [WG32]:** Add: And Community Advisory Panel

**Comment [WG33]:** Monthly

**Comment [WG34]:** Remove and add The City has incorporated a monthly sweeping schedule for all streets with curb and gutter.

**Comment [WG35]:** Remove

#### 4. Construction Site Runoff Control

*Person Responsible: Inspector*

The goal of this is to prevent sediment and waste generated at active construction sites from entering the stormwater conveyance system. The stormwater ordinance requires erosion and sediment control BMPs be in place prior to, during, and following development or re-development. Construction site operators are required to properly manage waste on the site such as discarded building materials, concrete truck washouts, chemicals, litter, sanitary waste, etc. as these items can adversely affect water quality if they come in contact with it.

Construction site operators are required to develop, implement, and maintain a Stormwater Pollution Prevention Plan (SWPPP) which is to be kept on site and accessible. Construction sites are also to have in place an inspector which self-inspects the site and maintains accurate reports. The City also has an inspector which oversees stormwater controls on the site and helps the developer to remain in compliance with Local, State and Federal stormwater regulations.

The City inspects high-priority sites (sites operating within 1,000 feet of an impaired stream) once a week, regular sites (sites operating over 1,000 feet from an impaired stream) bi-weekly, and inactive and stable sites once a month. The State's minimum inspection requirements by the City are once a month.

Comment [WG36]: Weekly

Table 4-1

BMP Implementation: Construction Site Runoff Control

Year and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1, November 2010	Water Quality Scorecard Review	Review codes and ordinances utilizing the EPA's Water Quality Scorecard	Meet with Codes, Administration, Planning, Engineering, and Public Works to review Water Quality Scorecard. Summary included with annual report following completion of Scorecard.	Codes, Engineering, Administration, Planning, and Public Works
1 through 4, as needed	Ordinance	Begin updating ordinance as required to comply with NPDES	Meeting agenda, sign-in sheet, etc. passage of ordinance	Engineering consultant, Administration
1 through 5, updated as needed	Inventory of Active Construction Sites	Creation and maintenance of current permitted construction sites within City	Inspection data sheets, NOVs issued, etc.	Public Works
2, as needed	Ordinance	Finalize changes to stormwater ordinance	Commission passing ordinance changes.	Public Works, Consultant, Attorney, Administration
1 through 5, continuously	Erosion Prevention and Sediment Control Handbook	Continue with adoption of handbook; continue with TDEC Level 1 and Level 2 training for employees	Adoption of latest TDEC or Metro Nashville handbook; attendance at Level 1 or 2 classes	Public Works, Commission
1 through 5, continuously	Site Plan Review	Perform site plan reviews as needed	Number of reviews performed.	Engineering, Planning, Public Works, Codes,

Comment [WG37]: Remove All

Comment [WG38]: Review

Comment [WG39]: Community Advisory Panel, stormwater coordinator

Comment [WG40]: Inspector

Comment [WG41]: 1 through 5 continuously

Comment [WG42]: Stormwater coordinator, city attorney, administration

Comment [WG45]: Stormwater coordinator

Comment [WG43]: Remove

Comment [WG44]: Remove

City of Goodlettsville's Stormwater Management Plan (SWMP) rev. 3/2017

				Administration
1 through 5, weekly, bi-weekly, monthly, after 1" rainfall within 24 hours, and as needed	Site Inspection	Continue construction site inspections, preparation of active site inventory list and evaluation plan. Ensure developer is conducting routine inspections, updating the SWPPP they prepared, etc.	Number of inspections performed, NOVs issued, Land Disturbance Permits issues, and meetings held.	Public Works
1 through 5, monthly and as needed	Routine Stormwater Meetings/Workshops	Coordinate monthly stormwater meetings with other MS4s and the general public.	Number of people in attendance	Public Works
1 through 5, as needed	Pre-Construction Meetings	Host pre-construction meetings to review stormwater controls	Number of pre-con meetings held.	Public Works
1 through 5, as needed	SWPPP	Development of SWPPP by developer for review by Engineering staff and Inspector	SWPPP documents reviewed	Public Works
1 through 5, as needed	Land-use planning	Land use planning and zoning is addressed by the Planning Board and Planning Department.	Number of plans reviewed.	Planning

Comment [WG46]: Sewer Dept.

Comment [WG47]: Inspector

Comment [WG48]: Stormwater Coordinator

**5. Post Construction Stormwater Management for New and Re-Development**

*Persons Responsible: Inspector, Public Works Superintendent*

Comment [WG49]: Stormwater Coordinator

The goal is to reduce the generation of non-point source pollution from urban runoff through planning and design prior to development or re-development. Post-construction runoff control focuses on site and design considerations, which are most effective when addressed in the planning and design stages of project development. Effective long-term management and maintenance are critical, so the best design opportunities are those needing the least amount of maintenance. The

goal of the program is to integrate basic and practical stormwater management techniques into new development to protect water quality.

Post-construction stormwater management controls include permanent structural and non-structural BMPs (e.g., conservation of natural and permeable areas, permeable pavers, rooftop runoff infiltration, mechanical storm drain filters, rain gardens, green infrastructure, etc.) that remain in place following project completion.

Table 5-1

BMP Implementation: Post-Construction Stormwater Management for New and Re-Development

Year and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, as needed	Pre-Construction Meetings	Host pre-construction meetings to review stormwater controls	Number of pre-con meetings held.	Public Works
1 through 5, as needed	Site Plan Review	Perform site plan reviews as needed.	Number of reviews performed.	Engineering, Planning, Public Works, Codes, Administration
1, as needed until process is complete	EPA's Water Quality Scorecard	Review codes and ordinances utilizing the EPA's Water Quality Scorecard	Production of summary for WCS.	Engineering, Administration, Codes, Planning, Public Works
2 through 4, as needed until process is complete	EPA's Water Quality Scorecard	Incorporate changes as needed based on findings from WQS review.	Noted changes.	Engineering, Administration, Codes, Planning, Public Works
4	Ordinance	Finalize changes needed to appear within stormwater ordinance	Reading and passing of revised stormwater ordinance	Engineering, Public Works, Attorney, Administration, Commission
1 through 5, as needed and annually	Post-construction runoff controls	Review and approval of post-construction runoff controls as part of site plan review and issuance of permits. Begin tracking of BMPs (plans review, approval process, GIS)	Site plan review updates, permit issuance, GIS creation of program to house post-construction BMP tracking and updates .	Planning, Public Works, Administration

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Comment [WG50]: Remove

Comment [WG51]: Remove

Comment [WG52]: Remove

Comment [WG53]: Remove

1 through 5, continuously	Post-Construction for Stormwater Quality Manual (TDEC)	Continue with TDEC's manual of BMPs for post-construction stormwater quality	BMPs are being adhered to upon inspection	Public Works
1 through 5, annually	Reporting	Receipt of annual reports from post-construction sites.	Number of reports received.	Public Works
1 through 5, as needed	Long-term Maintenance Plan (Inspection and Maintenance Agreement)	Require submittal of recorded document stating long-term maintenance plans for each project requiring a land disturbance permit.	Number of long-term maintenance agreements received.	Public Works

**6. Pollution Prevention/Good Housekeeping for Municipalities**

Person responsible: Public Works Superintendent

Comment [WG54]: Stormwater Coordinator

The goal is to assure that facility and maintenance operations City-wide occur in a manner which is protective of stormwater quality. Several employees move throughout the City on a daily basis and are the eyes and ears "on the ground" to observe water quality related issues. Employees are also responsible for the safety of their work place and know their actions can directly affect the quality of our waterways. Employees take pride in their jobs and are trained on a regular basis on water quality related issues.

Table 6-1

**BMP Implementation: Pollution Prevention/Good Housekeeping for Municipalities**

Year and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, annually and as needed	Employee Training	Continue City-wide departmental good housekeeping annual training to help improve pollutant control efforts and water quality	Number of people in attendance.	All departments.
1 through 5, annually and as needed	Standard Operating Procedures	Maintain standard operating procedures and review. Contains BMPs for municipal-operated facilities. Review and update as needed.	SOP documentation	Public Works

Comment [WG55]: Remove  
 Comment [WG56]: Remove

1 through 5, monthly	Departmental Inspection	Each department inspects for stormwater quality within their area and reports to Engineering on a monthly basis.	Number of reports received, noted items addressed and reconciled.	All departments.
1 through 5, monthly, quarterly and as needed	Employee Training (Level 1 and 2, TNSA, APWA, WCW/SCSG, etc.)	Employees who are involved with stormwater on a regular basis (more so than departmental inspectors) attend various stormwater meetings on monthly/quarterly/regular basis to stay current on stormwater-related events.	Number of meetings attended.	Public Works
1 through 5, annually	Water Quality Control Device	Inspect and clean water quality control device on regular basis and as needed.	Number of reports on equipment cleaning.	Sewer, Public Works, Inspector
1 through 5, continuously	Waste Disposal	Waste from storm sewers/catch basin is collected and stored in a covered shed on the Public works lot and disposed of offsite at a collection facility.	Number of times debris is delivered to offsite facility and total weight of materials disposed of.	Public Works
2 through 5, annually as needed	EPSC Training	Ensure each Engineering employee involved with stormwater has received TDEC's Level 1 (or Level 2 if needed) training and remain current with program.	Number of employees trained.	Public Works
1 through 5, continuously	Storm Drain Cleaning	Prior to or following a storm event, have storm drains cleaned throughout City	Number of storm drains cleaned, quantity of items removed.	Public Works
1 through 5	Hotline	Employees can report illicit discharges and water quality concerns via the City's hotline number ((615) 859-2740), by reporting it to their departmental stormwater contact, or via the City's website.	Number of reports received.	All departments

Comment [WG57]: Inspector

Comment [WG58]: Remove

Comment [WG59]: Remove

Comment [WG60]: Debris

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## Inspection and Monitoring Programs

### Construction Inspection

Persons Responsible: Inspector

The goal of this is to prevent sediment and waste generated at active construction sites from entering the stormwater conveyance system. The stormwater ordinance requires erosion and sediment control BMPs be in place prior to, during, and following development or re-development. Construction site operators are required to properly manage waste on the site such as discarded building materials, concrete truck washouts, chemicals, litter, sanitary waste, etc. as these items can adversely affect water quality if they come in contact with it.

The City has a technical review process that evaluates new development and redevelopment for construction site runoff. A pre-construction meeting between the City and the site developer occur to discuss details of water quality controls before, during and after construction.

Excel spreadsheets summarize inspection findings and checklists detail inspection results.

**Comment [WG61]:** Remove

The site plan review process:

1. Receipt by Planning Department of document from specified project engineering company for review and consideration at the published date of the next Planning Commission meeting.
2. A copy of the document/attachment is forwarded to Charlie Lowe, Ragan Smith Associates for a full engineering review. If Ragan Smith Associates is the project engineering company, the documents/attachments are sent to Gresham Smith and partners for a full engineering review.
3. Remaining copies of the documents are distributed to staff for review: Planning Director, City Engineer (who also receives the original stormwater documents attached to the document), Public Works Director, Public Works Superintendent, Sewer Superintendent, Fire Department, Codes Department.
4. Upon receipt of engineering comments from Ragan Smith Associates or Gresham Smith and Partners, a staff review meeting is scheduled to discuss outstanding issues of the document relating to all departments.
5. Corrected comments are prepared by the Planning Director and sent to the specified project engineer with a date for resubmittal of the corrected document to the Planning Department for final review.
6. Upon receipt of corrected document, the Planning Director will conduct a final review to determine if all outstanding issues have been addressed in accordance with the Goodlettsville Zoning Ordinance and Subdivision Regulations.
7. Copies of the document, any attachments and a staff review report will be delivered to members of the Planning Commission for review prior to the published date of the Planning Commission meeting.

**Comment [WG62]:** City Engineer, Codes Department and Public Works

**Comment [WG63]:** Remove

**Comment [WG64]:** Remove

Prior to commencement, the City's Inspector verifies appropriate stormwater controls are properly installed and functioning. Construction site operators are required to develop, implement, and maintain a Stormwater Pollution Prevention Plan (SWPPP) which is to be kept on site, be updated as needed, and remain accessible to the City's Inspector. Construction sites are also to have in place an inspector which self-inspects the site and maintains accurate reports. The City inspects high-priority sites (sites operating within 1,000 feet of an impaired stream) once a week, regular sites (sites operating over 1,000 feet from an impaired stream) ~~bi-weekly~~, and inactive and stable sites once a month. The State's minimum inspection requirements by the City are once a month. The City's Inspector oversees stormwater controls on the site and works to keep the developer in compliance with Local, State and Federal stormwater regulations.

Comment [WG65]: Weekly

**Stormwater Construction Inspection Checklist**

**CITY OF GOODLETTSVILLE  
STORMWATER INSPECTION REPORT**

SITE NAME: \_\_\_\_\_ DEVELOPER/CONTRACTOR: \_\_\_\_\_  
 PHASE: \_\_\_\_\_ WEATHER: \_\_\_\_\_  
 DATE OF INSPECTION: \_\_\_\_\_ INSPECTOR: \_\_\_\_\_

**Comment [WG66]:** Replace with TDEC inspection form

ROADS/ENTRANCE	N/A	YES	NO	REPAIRS NEEDED
Existing roads entering site are clean.				
Construction entrance working properly.				
New roads in development are clean.				
Inlet protectors installed and are clean.				
<b>SITE STABILIZATION</b>				
Stockpiles of soil are stabilized.				
Drains swales are stabilized.				
Sediment pond is stabilized.				
Temporary stabilization needed.				
<b>SEDIMENT PONDS/OUTFALLS</b>				
Sediment pond is installed.				
Sediment pond/outfall working properly.				
<b>MISCELLANEOUS</b>				
Silt fence installed per SWPPP.				
Silt fence repairs needed.				
Check dams installed accordingly.				
Check dams need cleaning.				

Notes:  
 \_\_\_\_\_  
 \_\_\_\_\_

Notice of Violation Letter Example

April 25, 2008

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. David Dial  
Dial Properties, LLC  
9000 Church Street East  
Brentwood, TN 37027

Re: ADMINISTRATIVE ORDER, The Town Homes of Windsor Green, Goodlettsville, TN

Dear Mr. Dial,

You received a Notice of Violation on April 4, 2008 for violations of section 210 of the Goodlettsville Storm water Ordinance. You were given a seven day time frame to bring these violations into compliance. The date that the above-mentioned violations were to be resolved by was April, 11, 2008. As of today, April 25, 2008, these issues are still unresolved.

Therefore, you are hereby ordered to immediately correct the following issues at the Town Homes of Windsor Green construction site:

- ✓ Silt fence down and/or sagging
- ✓ Silt fence improperly installed
- ✓ Construction debris and litter scattered on site
- ✓ No defined concrete wash area
- ✓ Lack of stabilization on disturbed land not being actively worked

A \$200 per day administrative penalty will be assessed for each day the site is not in compliance.

This penalty will be assessed beginning May 1, 2008 and will continue until all violations noted on the Notice of Violation are resolved.

You may move equipment onto the site which is needed to conduct the above work only. Please note that all silt fencing on this site must be properly installed and maintained. All construction debris and litter must be picked up and disposed of properly. A specific area must be identified, clearly marked and encircled in silt fence for the washing out of concrete or any other material deemed an illicit discharge by the City of Goodlettsville. All slopes and disturbed land not being actively worked must be stabilized when construction activity temporarily ceases for more than fifteen days.

City of Goodlettsville's Stormwater Management Plan (SWMP) rev. 3/2017

Comment [WG67]: Replace with letter head NOV...

Mr. David Dial  
Administrative Order  
Page two

In addition, it appears that there are some serious issues with the retaining wall and unstabilized slope behind building I. As you know, stormwater runoff has been observed pouring through and over the top of the wall.

Please contact this office by May 1, 2008 to arrange a meeting between the City and the engineer of record for this structure. The purpose of the meeting is to determine the best way to rapidly correct these issues.

Sincerely,

Billy Haley  
Public Works Inspector

Comment [WG68]: See above

**Hot/Spot Priority Area Inspection**

*Person responsible: Inspector*

Businesses were inspected by the Public Works Department utilizing the EPA's Hot Spot Inspection Checklist form. Establishments deemed hot spot/priority areas are sent an introductory letter, self-inspection checklist, and suggested BMPs to help improve water quality runoff from their operation. Correspondence to/from the department is noted within the Excel spreadsheet.

**Comment [WG69]:** These are annual inspections.

INSPECTION DATE: \_\_\_\_\_ PHONE: \_\_\_\_\_  
 EMAIL ADDRESS: \_\_\_\_\_

GOOD HOUSEKEEPING	N/A	YES	NO	ACTION NEEDED
Do storm drain grates need to be cleaned or maintained?				
Are stormwater drainage paths clear of dirt and debris?				
Are outside areas neat and orderly?				
Are waste receptacles properly contained and covered?				
Are vehicles or equipment cleaned at this facility?				
Is wash water disposed of into the sanitary sewer system? If installed in facility, are filters on drains are cleaned/maintained on regular basis.				
Are spill response materials available on site?				

HAZMAT STORAGE	N/A	YES	NO	ACTION NEEDED
Are vehicles fueled at this location?				
Are fuel tanks operating properly?				
Do above-ground storage tanks have secondary containment?				
Are containment structures or surface slabs liquid tight?				
Are hazardous materials stored on site?				
Are containers weathertight, covered or properly contained and stored?				

OTHER BEST MANAGEMENT PRACTICES	N/A	YES	NO	ACTION NEEDED
Are waste materials kept on site in leak-tight containers?				
Is leaking equipment equipped with drip pans and proper clean-up supplies?				
Are wastes, salvaged materials and recyclables are properly contained?				

**NOTES:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inspections are due March 30, June 30, September 30, and December 31

Goodlettsville Public Works  
 Attention: Inspector  
 215 Cartwright Street  
 Goodlettsville, TN 37072

Phone (615) 859-2740 Fax (615) 851-4052  
 There is also an on-line reporting mechanism businesses utilize to submit reports via the City's website.

## Municipal Inspection

Persons responsible: *Public Works Superintendent and Departmental Contacts in Administration, Fire, Parks, and Public Works*

The goal is to assure that facility and maintenance operations City-wide occur in a manner which is protective of stormwater quality. Several employees move throughout the City on a daily basis and are the eyes and ears "on the ground" to observe water quality related issues. Employees are also responsible for the safety of their work place and know their actions can directly affect the quality of our waterways. Employees take pride in their jobs and are trained on a regular basis on water quality related issues. Stormwater Pollution Prevention Plans (SWPPP) for each department has been produced and are updated as needed.

Each department has a stormwater contact that is responsible for conducting monthly departmental stormwater inspections. Reports are due the 28<sup>th</sup> of each month and are submitted to the Public Works Superintendent. As-needed meetings are held with the departmental contacts, Public Works Superintendent, and/or Inspector.

Comment [WG70]: Inspector

Comment [WG71]: Inspector

Comment [WG72]: Remove

**CITY OF GOODLETTSVILLE  
GOOD HOUSEKEEPING INSPECTION SHEET**

DEPARTMENT: \_\_\_\_\_

WEATHER: \_\_\_\_\_

DATE: \_\_\_\_\_

INSPECTOR: \_\_\_\_\_

GOOD HOUSEKEEPING	N/A	YES	NO	ACTION NEEDED
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Are storm drain inlets labeled with "Drains to Stream" disks?				
Are storm drain grates clean or do they need maintenance?				
Are stormwater drainage paths are clear of dirt and debris?				
Are outside areas are neat, orderly, and free of debris?				
Are waste receptacles properly contained and covered?				
Are vehicles or equipment cleaned at this facility?				
Are the filters installed on drains cleaned and/or maintained on regular basis? <i>Note when cleaned or maintained.</i>				
Are spill response materials readily available and are employees trained on use?				

MATERIALS AND HAZMAT STORAGE	N/A	YES	NO	ACTION NEEDED
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Are vehicles fueled at this location?				
Are fuel tanks operating properly? Note any repairs since last inspection.				
Do above-ground storage tanks have secondary containment?				
Do containment structures need repair?				
Are hazardous materials stored on site?				
Are containers weathertight, covered, properly contained and stored?				
Is an updated MSDS folder easily accessible?				
Are products labeled according to MSDS/TOSHA/OSHA specifications?				
How are chemicals and wash water disposed?				

OTHER BEST MANAGEMENT PRACTICES	N/A	YES	NO	ACTION NEEDED
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Is leaking equipment equipped with drip pans and proper clean-up supplies?				
Are salvaged materials and recyclables properly contained?				
Has this facility received storm water complaints? If so, attach documentation.				
Have reported issue(s) been addressed and documented?				
Have employees received stormwater good housekeeping training?				
Is a contact list posted so employees can report water-quality threats?				

**NOTES:**

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Revised October 20, 2010.

## Illicit Discharge Detection and Elimination Inspection

*Persons Responsible: Inspector*

The goal of this minimum control measure is to reduce pollutants in stormwater runoff to receiving waters. It requires the development and implementation of a system to identify and eliminate sources of illicit discharge and illegal dumping.

The permit requires the City of Goodlettsville to develop, implement, and enforce a program that detects and eliminates illicit discharges as defined in 40 CFR §122.26(b)(2). The City must develop a storm sewer system map showing the location of all outfalls as well as the names and locations of all waters receiving discharges from the indicated outfalls and develop a program addressing non-stormwater discharges, including illegal dumping, hot spot/priority areas, and illegal discharges into the local water bodies.

The City utilizes its own ORI and SCORE sheets to document outfalls channeling runoff to the creeks and assess stream conditions at monitoring sites. Outfalls are mapped utilizing GIS mapping. The City has developed, implemented and maintains a hot spot/priority area program (described above). In addition to the Inspector, the Public Works Superintendent, interns, college students, and citizens within the community will assist with ORI and SCORE reporting.

Comment [WG73]: GIS system

Illegal dumping is addressed by the City's Public Works and Police Departments and prosecuted when possible.

Comment [WG74]: Remove

## TMDL

### TMDL Overview

The TMDL process establishes the maximum allowable loadings of pollutants for a water body while maintaining quality standards for various uses ranging from aquatic and marine life to recreational usage. The TMDL is used to develop controls for reducing pollution from point and non-point sources in order to restore and maintain water resource quality. Water quality monitoring activities provide the chemical, physical and biological data needed to determine the present quality of the State's waters and identifies the sources of pollutants in those waters.<sup>1</sup>

The EPA, with oversight from the local TDEC office in Nashville, requires local MS4 Phase II communities, which the City of Goodlettsville is classified as, to implement a five-year monitoring plan of its impaired stream segments which are listed within the April 17, 2008 EPA, Region 4-approved TMDL report. Bill Brasier and Amy Murray, with the City of Goodlettsville, met with Ann Morbitt, Bill Duffel, and Jimmy Smith, with TDEC, on March 12, 2009, to review the City's responsibilities for TMDL monitoring.

Comment [WG75]: Remove

City of Goodlettsville's Stormwater Management Plan (SWMP) rev. 3/2017

The water monitoring program shall include collection and analysis of physical, chemical and biological data as well as quality assurance and control programs to assure scientifically valid data.<sup>11</sup> Additional monitoring and assessment activities are recommended to determine whether implementation of TMDLs, WLA, and LAs in tributaries and upstream reaches which will result in achievement of in-stream water quality targets for e.Coli. Long-term monitoring is ideal for determining the sources of pollution.

The purpose of this plan is to comply with TDEC's monitoring requirements associated with the approved TMDL report for e.Coli in the Lower Cumberland Sycamore (Cheatham Lake) Watershed as described within the City of Goodlettsville's NPDES Permit #TNS 075345. The City's stormwater permit outlines the six minimum required BMPs previously described within this SWMP. To evaluate the program's effectiveness and TMDL reporting compliance, appropriate monitoring programs must be established and fulfilled.

The City of Goodlettsville must prepare and implement stream monitoring plans for both siltation/habitat alterations and for pathogens. The streams within Goodlettsville which have e.Coli impairments are Mansker's Creek, Slater's Creek, and Lumsley Fork and those which have siltation impairments are Mansker's Creek, Slater's Creek, and Madison Creek.

The City is responsible for conducting one geometric mean test for e.coli, a visual assessment, and obtain a flow measurement for each impaired stream segment within its jurisdiction. e. Coli testing must be completed before April 17, 2013. To complete the visual assessments, the City will use its ORI form to document outfalls and a SCORE worksheet to document the stream's corridors and flow measurements and/or forms required by TDEC. A State-certified laboratory will analyze test results.

Since the issuance of the new NPDES permit (effective October 1, 2010 – September 1, 2015), the City is also required to monitor each stream segment that is impaired with siltation. Biological stream sampling will be performed utilizing methods identified within TDEC's standard operating procedures for macro-invertebrate sampling and/or testing approved under 40 CFR §136. Monitoring information shall include the monitoring date, exact location (latitude and longitude), time of sampling, names of individuals conducting sampling, date the analyses were performed, names of individuals who conducted the analyses, analytical techniques or methods used and the results of the analyses.

From this inspection process, the City will be able to determine if changes will need to be made to existing BMPs and/or if new BMPs need to be established. Once the data's in place, it'll be determined if priorities need to be re-established. Monitoring data will be included in future annual stormwater reports submitted to TDEC as required.

Comment [WG76]: July 2019

Comment [WG77]: Remove

Comment [WG78]: February 8, 2017 - September 30, 2021

## TMDL NPDES MS4 Permit Requirements

The approved TMDL considers e.Coli a nonpoint source of pollution which is not regulated by an NPDES permit. However, the Phase II permit includes conditions for stormwater discharges to impaired streams and conditions for impaired water bodies under a TMDL.

Nonpoint sources of both coliform bacteria and siltation are not identified as entering a water body through a specific conveyance at a single location. These sources usually involve accumulation on land surfaces and wash off as a result of storm events, are present due to failing septic system or as a result of stream bank erosion or failing BMPs from construction activities. Nonpoint sources of e.Coli loading are primarily associated with agricultural and urban land uses. The vast majority of water bodies identified on the EPA's 2010 303(d) list as impaired due to e.Coli or siltation are attributed to nonpoint agricultural or urban sources.

Wildlife and agriculture deposit coliform bacteria with their feces onto land surfaces where it can be transported during storm events to nearby streams. TWRA estimates the deer density to be 23 animals per square mile within the Lower Cumberland watershed. Agricultural livestock and other unconfined animals often have direct access to water bodies and can provide a concentrated source of coliform bacteria loading directly to a stream.

Some coliform loading can also be attributed to the failure of septic systems and illicit discharges of raw sewage. It is estimated there are approximately 2.37 people per household on septic systems within the watershed, some of which can reasonably be assumed as failing and therefore, are more than likely providing a concentrated source of coliform bacteria directly to a water body. (TDEC, TMDL, 2008, pp. 22-26). The county health departments monitor and address any septic-related issues within Goodlettsville's jurisdiction.

Urban land use provides additional opportunities for carrying pollutants to our water bodies such as stormwater runoff, construction activities, sanitary waste, improper disposal of wastes, leaking septic systems, domestic animals, etc.

## TMDL Data Review

The TMDL for e.Coli within the Cheatham Lake Watershed, Lower Cumberland Sycamore Sub-watershed was submitted to EPA, Region 4 on April 1, 2008, and approved on April 17, 2008. The TMDL addresses water body segments of the Cheatham Lake Watershed which are listed on EPA's 2006 final 303(d) list as impaired due to e.Coli and the 2010 final 303(d) list as impaired for siltation and habitat alterations. The streams impaired for e.Coli from the 2006 final list remain the same on the EPA's 2010 303(d) list. The following stream segments are within the City of Goodlettsville's jurisdiction:

City of Goodlettsville's Stormwater Management Plan (SWMP) rev. 3/2017

Comment [WG79]: 2016

Comment [WG80]: 2016

Comment [WG81]: 2016

Stream Name	Stream ID	Cause	Approved TMDL	MS4 Assigned to WLA
Dry Creek	TN05130202027-2000	Habitat Alterations	No	No
Lumsley Fork	TN05130202220-0100	Escherichia coli	Yes	Yes
Madison Creek	TN05130202220-0400	Siltation	No	No
Mansker's Creek	TN05130202220-1000	Escherichia coli	Yes	Yes
Mansker's Creek	TN05130202220-1000	Siltation	No	No
Mansker's Creek	TN05130202220-2000	Siltation	No	No
Mansker's Creek	TN05130202220-2000	Escherichia coli	Yes	Yes
Slater's Creek	TN05130202220-0300	Siltation	No	No
Slater's Creek	TN05130202220-0300	Escherichia coli	Yes	Yes

e.Coli is an indicator of the presence of disease-causing organisms such as bacteria or viruses, which can pose an immediate and serious health threat to humans. The noted primary source of e.Coli is untreated or inadequately treated human or animal fecal matter. Based on the analysis of data taken in the above-mentioned streams, the TMDL develops load reductions in e.Coli necessary for the impaired streams segments to meet water quality standards. The City of Goodlettsville continues to undergo sewer rehabilitation throughout its jurisdiction to ensure the sewer system is operating at capacity. In 2010, the City began construction of an 8.5 million gallon equalization basin to catch overflow from the Mansker's Creek Pumping Station with the goal of eliminating any sewer overflow from reaching Mansker's Creek.

**TMDL TDEC/Metro's Testing Locations and Data Results for e. Coli**

This is data from TDEC's water quality monitoring data within the Lower Cumberland subwatershed.<sup>iii</sup>

**MANSK002.8SR – Mansker's Creek @ Caldwell Drive (behind Kroger)**

Testing dates: February 22, 2001 through February 7, 2006 (15 samples)

TMDL stream segment identification number: TN05130202220-1000

		Date	e.Coli (cts./100mL)
MANSK002.8SR		2/22/01	550
		3/8/01	16
		4/19/01	84
		6/26/01	580
		7/31/01	820
		8/1/01	650
		10/1/01	160
		7/7/05	150

Comment [WG82]: No follow-up data documented.

	8/18/05	2900
	9/27/05	98
	10/5/05	240
	11/29/05	770
	12/8/05	100
	1/30/06	100
	2/7/06	82

Comment [WG83]: 8/31/15 201

Comment [WG84]:	9/2/15	128
	9/2/15	115
	9/8/15	211
	9/8/15	166
	9/10/15	326
	9/14/15	77
	9/14/15	115

Comment [WG85]: No follow-up data documented

Comment [WG86]: No follow-up data documented

Comment [WG87]: No follow-up data documented

Comment [WG88]: No follow-up data documented

Comment [WG89]: No follow-up data documented

**MANSK004.7SR – Mansker's Creek @ Old Stone Bridge**

Testing dates: March 2, 2001 through September 28, 2004 (12 samples)  
 TMDL stream segment identification number: TN05130202220-2000

	Date	e.Coli (cts./100mL)
	3/2/01	230
	6/25/01	580
	7/11/01	270
	10/29/01	56
	2/18/02	18
MANSK004.7SR	5/22/02	160
	8/12/02	130
	4/15/03	52
	8/18/03	93
	5/24/04	440
	8/31/04	490
	9/28/04	520

Comment [WG90]: Testing site obsolete

City of Goodlettsville's Stormwater Management Plan (SWM/P) rev. 3/2017

**MANSK006.2SR – Mansker's Creek upstream at Bakers Fork**

*This testing location is upstream of the City's boundary.*  
 Testing dates: February 22, 2001 through February 7, 2006 (16 samples)  
 TMDL stream segment identification number: TN05130202220-2000

	Date	e.Coli (cts./100mL)
MANSK006.2SR	2/22/01	460
	3/8/01	24

4/1/01	220
5/8/01	>2400
6/26/01	260
7/31/01	580
8/1/01	490
10/1/01	38
7/7/05	290
8/18/05	>2400
9/27/05	130
10/5/05	110
11/29/05	870
12/8/05	80
1/30/06	230
2/7/06	370

Comment [WG91]: No follow-up data documented

Comment [WG92]: 

8/27/13	84
8/31/13	44

Comment [WG93]: 

9/2/13	99
9/10/13	2420
9/14/13	548

Comment [WG94]: No follow-up data documented

Comment [WG95]: 

11/17/13	101
11/17/13	0

Comment [WG96]: 

12/7/15	921
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Comment [WG97]: 

1/5/16	47
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Comment [WG98]: 

2/23/16	687
3/22/16	210
4/27/16	727
4/4/16	1733
6/21/16	205

**MANSK008.5SR –Mansker's Creek @ Old Shiloh Road**  
 This testing location is upstream of the City's boundary.  
 Testing dates: March 2, 2001 through August 31, 2004 (10 samples)  
 TMDL stream segment identification number: TN05130202220-2000

Date	e.Coli (cts./100mL)
3/2/01	980
6/25/01	83
10/29/01	150
2/18/02	52
5/22/02	120
4/15/03	14
8/18/03	580
8/22/03	140
5/24/04	90
8/31/04	130

Comment [WG99]: Testing site obsolete

**SLATE000.3SR – Slater's Creek off of Highway 31W (Goodlettsville/Millersville city limits)**

*This testing location is on the City limit line for the cities of Goodlettsville and Millersville.*

Testing dates: February 22, 2001 through February 7, 2006 (16 samples)

TMDL stream segment identification number: TN05130202220-0300

Date	e.Coli (cts./100mL)
2/22/01	290
3/8/01	29
4/19/01	240
5/8/01	2400
6/26/01	1700
7/31/01	110
8/1/01	610
10/1/01	33
7/7/05	150
8/18/05	4600
9/27/05	240
10/5/05	84
11/29/05	650
12/8/05	650
1/30/06	210
2/7/06	8

- Comment [WG100]: No follow-up data documented
- Comment [WG101]: 

8/27/15	166
8/31/15	119
- Comment [WG102]: 

9/2/15	161
9/8/15	93
9/14/15	687
- Comment [WG103]: No follow-up data documented
- Comment [WG104]: No follow-up data documented
- Comment [WG105]: No follow-up data documented
- Comment [WG106]: No follow-up data documented
- Comment [WG107]: No follow-up data documented

City of Goodlettsville's Stormwater Management Plan (SWMP), rev. 3/2017

**LUMSL000.1DA – Lumsley Fork @ Old Springfield Highway (at corporate boundary)**

*This testing location is at the City limit line of Goodlettsville and Davidson County.*

Testing dates: February 22, 2001 through August 31, 2004 (13 samples)

TMDL stream segment identification number: TN05130202220-0100

Date	e.Coli (cts./100mL)
2/22/01	520
3/8/01	6
4/19/01	2

5/8/01	2400
6/26/01	330
7/31/01	150
8/1/01	310
10/1/01	18
4/15/03	64
8/18/03	190
5/24/04	550
5/25/04	470
8/31/04	410

Comment [WG108]:	8/27/15	62
	8/31/15	79
	9/2/15	70
	9/10/15	488
	9/14/15	866

The TMDLs for e.Coli were developed using a load duration curve methodology process. This was to ensure compliance with the geometric mean goal for e.Coli at 941 CFU/100mL. Water quality data was collected and a load duration curve analysis was used to assess the water's standards. When the data was collected, it was over various periods of all seasons, flow ranges, and varying weather conditions.

### TMDL Watershed Description

The Lower Cumberland Sycamore Watershed has a varied land-use distribution. According to the EPA's 2010 final 303(d) list, Goodlettsville's streams, including several others that flow into Goodlettsville's jurisdiction from outside areas, are not fully-supporting water bodies due, in part, to e.Coli, siltation and/or habitat alteration contamination. The designated use classifications for Goodlettsville's streams include fish, aquatic life, irrigation, livestock, wildlife, recreation and more.

The sub-watershed's land use, which contains Goodlettsville's impaired stream segments, is made up of 70.7% deciduous, mixed, or evergreen forest, commercial/industrial transportation – 4%, high/low intensity residential – 4.5%, open water 0.1%, recreation/other grasses – 3.6%, pasture – 13.3%, crops – 2.9%, woody wetlands – 0.8% and transitional land use – 0.2%. This area comprises 29,935.4 total acres.<sup>iv</sup> The Dry Creek sub-watershed's land use is made up of 44.5% deciduous, mixed, or evergreen forest, commercial/industrial transportation – 6.7%, high/low intensity residential – 21.9%, recreation/other grasses – 11.9%, pasture – 11.5%, quarries, strip mines, gravel pits – 3.5%. The drainage area affecting Dry Creek is somewhat different than that which affects the remaining streams within Goodlettsville and is located on the City's south end of town.

## TMDL Stream Descriptions

### Mansker's Creek

Mansker Creek's headwaters begin in Millersville and flow into and through Goodlettsville before emptying into the Cumberland River. Mansker Creek receives water from many tributaries and creeks within the watershed (including the impaired streams within Goodlettsville – Slater's Creek, Lumsley Fork, and Madison Creek) as well as roadways, forestry, commercial land, pavement, and residential land - mixed urban/agricultural. Mansker Creek empties into the Cumberland River approximately 1 ¼ miles northeast of where Dry Creek empties into the Cumberland.

Mansker Creek has a total of six TDEC/Metro monitoring stations for e.Coli data collection. Three monitoring stations located in segment 220-1000 are at miles 0.8, 2.8, and 4.7 (from Cheatham Reservoir to Slater's Creek). Two monitoring stations located in segment 220-2000 are at miles 6.2 and 8.5 (from Slater's Creek to the headwaters). Metro monitors off of the bridge at on Long Hollow Pike at the county line (Sumner/Davidson). Three macro-invertebrate sampling locations on Mansker's Creek occurred at Caldwell Drive RM 2.8 (behind Kroger/off Long Hollow Pike) Lat. 36.324444 Long. -86.696.94, Cedar Street at water utility pumping station behind Kmart and next to Metro Baptist Church, RM 3.4, – Lat. 36.326945 Long. -86.703611 and at Baker's Fork off of Highway 41 RM 6.2, Lat. 36.360278 Long. -86.72694.

According to TDEC, critical conditions occur for Mansker Creek during moist, mid-range, and dry conditions.

City of Goodlettsville's [online link for Mansker's Creek](#).

### Slater's Creek

Slater's Creek headwaters begin in Millersville and flow into Goodlettsville before emptying into Mansker Creek (Old Stone Bridge/US Highway 41/US Highway 31). An e. Coli testing station for Slater's Creek was conducted at the City limits line/Long Drive area adjacent to a rock quarry in Millersville. Another e.Coli testing location was near the single arch stone bridge. Macro-invertebrate sampling for Slater's Creek occurred off of Highway 31W/41 @ mouth, RM 0.1, Lat. 36.338889 Long. -86.718611 and off of Highway 31W, RM 0.3, Lat. 36.343056 Long. -86.71667.

According to TDEC, critical conditions occur for Slater's Creek during mid-range conditions (between moist and dry conditions). Slater's Creek is served by runoff many tributaries, roadways, pavement, forestry, commercial, and residential land - mixed urban/agricultural.

City of Goodlettsville's [online link for Slater's Creek](#).

City of Goodlettsville's Stormwater Management Plan (SWMP) rev. 3/2017

Comment [WG109]: Remove

Comment [WG110]:

Comment [WG111]: Remove

Comment [WG112]:

### Lumsley Fork

Lumsley Fork flows from Davidson County into Goodlettsville and runs along Brick Church Pike, Hitt Lane, and New Hitt Lane before ending at Mansker Creek at Old Springfield Highway at a city limit boundary. E. Coli testing for Lumsley Fork was conducted near the City limit boundary with Davidson County at mile 0.1. Another e.Coli test location where Metro is sampling is behind the former KOA Kampground off of Hitt Lane/Old Springfield Highway. Macro-invertebrate sampling for Lumsley Fork occurred at the mouth of Mansker Creek at Brick Church Pike and Hitt Lane, RM 0.1, Lat. 36.339444 Long. -86.72.

According to TDEC, critical conditions occur for Lumsley Fork during mid-range conditions (between moist and dry conditions). Lumsley Fork is served by runoff from tributaries, roadways, pavement, commercial and residential land - mixed urban/agricultural.

[City of Goodlettsville's online link for Lumsley Fork.](#)

Comment [WG113]: Remove

### Madison Creek

Madison Creek enters Goodlettsville on the northeast side and runs adjacent to Madison Creek Road before draining into Mansker's Creek at Moss-Wright Park. Madison Creek's water quality suffers from siltation due to land development issues. Madison Creek is impaired for 14.4 miles. Macroinvertebrate sampling for Madison Creek on Caldwell Drive, RM 0.5, at Moss-Wright Park, Lat. 36.322778 Long. -86.67917.

Madison Creek is served by runoff from tributaries, roadways, pavement, commercial and residential land - a mixed urban/agricultural classification.

[City of Goodlettsville's online link for Madison Creek.](#)

Comment [WG114]: Remove

### Dry Creek

Dry Creek flows from Davidson County into Goodlettsville's southern corner from the west and runs along some of the City's southern limits and continues to flow through Davidson County before entering the Cumberland River.

Sampling for e.Coli occurred at Metro Nashville's wastewater treatment plant, approximately .5 miles downstream of Goodlettsville's jurisdiction.

Macro-invertebrate sampling on Dry Creek occurred downstream of the City's jurisdiction at RM 1.1 at Gallatin Road Lat. 36.284167 Long. -86.706389.

Dry Creek is served by runoff from tributaries, roadways, pavement, commercial and residential land - a mixed urban/agricultural classification and drains into the Cumberland River and is impaired by e. Coli (outside of Goodlettsville's jurisdiction) and habitat alterations (within Goodlettsville's jurisdiction).

[City of Goodlettsville's online link for Dry Creek.](#)

Comment [WG115]: Remove

## TMDL Monitoring Plan for e.Coli and Macro-invertebrate sampling

This monitoring plan gathers various data sets regarding the impairment of streams within the City's jurisdiction to identify sources and levels of e.Coli, siltation and/or habitat alteration contamination. By interpreting and using this data, we can work to identify potential pollutant sources.

TDEC has developed standards for the TMDL monitoring plan such as visual surveys, chemical monitoring, and biological assessments. For e.Coli and siltation detection, TDEC requires visual assessments and surveys as well as chemical or macro-invertebrate sampling and flow measurements within each impaired stream segment. The City of Goodlettsville uses their own Outfall Reconnaissance Inventory (ORI) form for documenting outfalls and a SCORE worksheet to document visual stream assessments and/or forms required by TDEC.

*Note: the City of Goodlettsville is not required to monitor Dry Creek for e.Coli as the impaired section noted within the TMDL is downstream of the City's limits. The City of Goodlettsville is also not required to monitor Walker's Creek as this creek borders the City and does not enter its jurisdiction.*

### Visual Assessment

- (1) Identify possible sources of impairment
  - (a) Stream walk (minimum of 2 people conducting survey)
    - (i) ORI Form
      1. Point source identification and details
    - (ii) SCORE Worksheet
      1. Health
      2. Canopy shading
      3. Land use classification
      4. Site description
      5. Monitoring protocol is based on EPA/Center for Watershed Protection/City of Goodlettsville/City of Chattanooga
      6. Corrective action plan and timeline
    - (iii) TDEC Required Forms
  - (a) Analyze data collected
  - (b) Prioritize impairment sources
- (2) Prioritize sources of impairment
  - (a) Analyze data collected
  - (b) Prioritize impairment sources
- (3) Documentation
  - (a) Photographs
  - (b) Maps
  - (c) ORI/SCORE/TDEC worksheets
  - (d) Chemical and biological analyses

## TMDL e.Coli and Siltation Monitoring and Testing Procedures

### e. Coli

In-stream sampling for pathogens is performed using TDEC's Standard Operating Procedures (<http://www.state.tn.us/environment/wpc/publications/ChemSOP03QUAP.pdf>) and guidelines laid out in 40 CFR 136.3, table 1A, #5, table 1H, #1, table 2 referring to table 1A [http://ecfr.gpoaccess.gov/cgi/t/text/textidx?c=ecfr&tpl=/ecfr/browse/Title40/40cfr136\\_main\\_02.tpl](http://ecfr.gpoaccess.gov/cgi/t/text/textidx?c=ecfr&tpl=/ecfr/browse/Title40/40cfr136_main_02.tpl)

Results are included in our annual MS4 report, unless otherwise informed by TDEC.

Geometric mean testing, a visual assessment, and flow measurement will be conducted on each impaired stream segment. E.Coli testing completed and reported to TDEC April 2013 (see implementation schedule below).

### TMDL e. Coli Testing Locations and Information

MANSKER CREEK – E.COLI (Lumsley Fork to Cumberland River) TN05130202220-1000 Total Miles Impaired: 7.9			
Location	Description	Date(s)/Frequency	Parameters
Behind Kroger	TDEC's monitoring station  Latitude 36.324444  Longitude -86.69694	5x for geometric mean sampling.  September 2011	Geometric mean for e.Coli, stream flow, and visual assessment.
North of double arch Old Stone bridge.	Goodlettsville's monitoring station.  Latitude 36.338249  Longitude -86.719356	5x for geometric mean sampling.  September 2011	Geometric mean for e.Coli, stream flow, and visual assessment.

**MANSKER CREEK – E.COLI**

(Headwaters to Lumsley Fork)

TN05130202220-2000

Total Miles Impaired: 7.6

Location	Description	Date(s)/Frequency	Parameters
Williamson Road (turn right off of Dickerson NB at traffic light) at Millersville/ Goodlettsville city limits NE of Highway 41/ Springfield Highway. Test close to 1068 Williamson Road/city limits near Springfield Highway bridge.	TDEC's monitoring station  Latitude 36.361208  Longitude -86.725934	5x for geometric mean sampling.  September 2011	Geometric mean for e.Coli, stream flow, and visual assessment.

**LUMSLEY FORK – E.COLI**

TN05130202220-0100

Total Miles Impaired: 4.7

Location	Description	Date(s)/Frequency	Parameters
Old Springfield Highway and New Hitt Lane, prior to entering Mansker's Creek.	TDEC's monitoring station  Latitude 36.339444 Longitude -86.720000	5x for geometric mean sampling.  September 2011	Geometric mean for e.Coli, stream flow, and visual assessment.
Intersection of Brick Church Pike and Hitt Lane near city limits line.	Goodlettsville's monitoring station.  Latitude 36.332348  Longitude	5x for geometric mean sampling.  September 2011	Geometric mean for e.Coli, stream flow, and visual assessment.

City of Goodlettsville's Stormwater Management Plan (SWMP) rev. 3/2017

-86730911

SLATER'S CREEK - E.COLI

TN05130202220-0300

Total Miles Impaired: 11.3

Location	Description	Date(s)/Frequency	Parameters
Creekside Drive at Goodlettsville/Millersville city limits, near bridge, behind Coach Quarters bus rental.	Goodlettsville's monitoring station.  Latitude 36.35713 Longitude -85.28769	5x geometric mean sampling.  September 2011	Geometric mean for e.Coli, stream flow, and visual assessment.
Single arch Old Stone bridge, prior to entering Mansker's Creek.	TDEC's monitoring station  Latitude 36.342375 Longitude -86.716144	5x geometric mean sampling.  September 2011	Geometric mean for e.Coli, stream flow, and visual assessment.

**Siltation**

Sampling for siltation and habitat alterations is performed using TDEC's Standard Operating Procedures

<http://www.tn.gov/environment/wpc/publications/pdf/bugsop06.pdf> with results being included within Goodlettsville's annual MS4 report to TDEC within the monitoring year samples were collected and processed, unless otherwise informed by TDEC.

Visual assessments, outfall inventories, macro-invertebrate sampling and flow measurement will be conducted on each impaired stream segment. Samples collected April 16-17, 2013, and analyzed/processed/identified by Dr. Ritchie Taylor, Western Kentucky University.

**TMDL Siltation Testing Locations and Information**

SLATER'S CREEK - SILTATION			
TN05130202220-0300			
Total Miles Impaired: 11.3			
Location	Description	Date(s)/Frequency	Parameters
Creekside Drive at Goodlettsville/Millersville city limits, near bridge, behind Coach Quarters bus rental	Goodlettsville's monitoring station.  Latitude 36.35713 Longitude -85.28769	April 16, 2013	Biological sampling, stream flow, and visual assessment.
Single arch Old Stone bridge, prior to entering Mansker's Creek.	TDEC's monitoring station  Latitude 36.338889 Longitude -86.718611	April 16, 2013	Biological sampling, stream flow, and visual assessment

MANSKER CREEK - SILTATION			
(headwaters to Lumsley Fork)			
TN05130202220-2000			
Total Miles Impaired: 7.6			
Location	Description	Date(s)/Frequency	Parameters
Williamson Road (turn right off of Dickerson NB at	Goodlettsville's monitoring	April 16, 2013	Biological sampling, stream flow, and visual

City of Goodlettsville's Stormwater Management Plan (SWMP) rev. 3/2017

traffic light) at Millersville/ Goodlettsville city limits NE of Highway 41/ Springfield Highway. Test close to 1068 Williamson Road/city limits near Springfield Highway bridge.	station  Latitude 36.361208  Longitude -86.725934		assessment

DRY CREEK - SILTATION TN05130202027-2000 Total Miles Impaired: 5.9			
Location	Description	Date(s)/Frequency	Parameters
Sample either at Janette or near Ivy Hills.	Goodlettsville's Testing Location. TDEC sampled outside of the City's jurisdiction	April 17, 2013	Biological sampling, stream flow, and visual assessment.

MADISON CREEK - SILTATION TN05130202220-0400 Total Miles Impaired: 14.4			
Location	Description	Date(s)/Frequency	Parameters
Caldwell Drive @ Moss- Wright Park kiddy corner from 12 Stones	TDEC's monitoring station  Latitude 36.322500  Longitude -86.678611	April 17, 2013	Biological sampling, stream flow, and visual assessment.

MANSKER CREEK - SILTATION (Lumsley Fork to Cumberland River) TN05130202220-1000 Total Miles Impaired: 7.9			
Location	Description	Date(s)/Frequency	Parameters
North of double arch Old	Goodlettsville's	April 16, 2013	Biological sampling, stream

Stone bridge.	monitoring station. Latitude 36.338249 Longitude -86.719356		flow, and visual assessment
East Cedar Street @ Water Utility's Goodlettsville Pump Station, next to Metro Baptist Church and behind KMart	TDEC's monitoring station Latitude 36.326945 Longitude -86.703611	April 16, 2013	Biological sampling, stream flow, and visual assessment

### Summary

The main goal of the SWMP is to reduce the discharge of pollutants into local water bodies and to identify activities or structural improvements that help improve the quality and reduce the quantity of stormwater runoff. BMPs have been developed and are in place to help reduce the discharge of pollutants to the storm drain system, and are updated as needed to comply with changes to the NPDES permit requirements.

The City of Goodlettsville will survey the same impaired stream segments which TDEC or Metro have previously tested within the City's corporate boundary. Data will be collected for e.Coli and siltation analyses and submitted to TDEC. This data, as it's collected, will be included with the City's annual MS4 report.

Only until data is collected, analyzed, mapped and documented, will the sources of pollutants be targeted more accurately. Continuing to physically walk the streams and identifying outfalls and condition of the stream's corridors will also aid in this process. In addition, the City will continue to apply the terms of its MS4 permit to the fullest extent, ensuring existing BMPs are implemented to meet the waste load allocations for each water body. This allows the City to determine the need for the possibility of new BMPs to be created and implemented.

At the end of the new Phase II permit, the City hopes to have a level of information needed to determine the point and non-point sources of pollutants along these impaired streams so the City of Goodlettsville and TDEC can further enforce regulatory measures to those causing pollution to our water bodies. The ultimate goal is to remove each impaired water body within Goodlettsville's jurisdiction from EPA's 303(d) list of impaired streams.

An annual report is submitted by the City of Goodlettsville to TDEC by September 30, and includes the status of compliance with permit conditions, an assessment of the appropriateness and effectiveness of stated BMPs, status of identified measurable goals, results of information collected and analyzed, includes monitoring data collected

during the reporting period, proposed changes to the overall stormwater management plan and why they are needed, and any changes in the person(s) implementing and coordinating the stormwater management plan. A public hearing and opportunity to comment is established prior to September 30, which allows the public to view and comment/ask questions about the program and report.

## TMDL References

- <sup>i</sup> Electronic Code of Federal Regulations. "Water Quality Monitoring." Protection of the Environment 40 CFR Part 130.0(b) Program Summary and Purpose. Accessed 24 June 2008. <http://ecfr.gpoaccess.gov/cgi/t/text/textidx?c=ecfr&sid=250a374010e03f67499ef1129b0187d4e&gn=div8&view=text&node=40:21.0.1.1.17.0.16.1&idno=40>
- <sup>ii</sup> Electronic Code of Federal Regulations. "Water Quality Monitoring." Protection of the Environment 40 CFR Part 130.4(b) Water Quality Monitoring. 11 April 1989. Accessed 24 June 2008. <http://ecfr.gpoaccess.gov/cgi/t/text/textidx?c=ecfr&sid=250a374010e03f67499ef129b0187d4e;rgn=div8;view=text;node=40%3A21.0.1.1.17.0.16.5;idno=40;cc=ecfr>
- <sup>iii</sup> Tennessee Department of Environment and Conservation. "TMDL for e. Coli in the Lower Cumberland (Cheatham Lake) Watershed (HUC 05130202) Cheatham, Davidson, Robertson, Sumner, and Williamson Counties, Tennessee" Final Approved TMDL. 17 April 2008. Accessed 8 January 2009. Page B-3. <http://www.tdec.net>
- <sup>iv</sup> Tennessee Department of Environment and Conservation. "TMDL for e. Coli in the Lower Cumberland (Cheatham Lake) Watershed (HUC 05130202) Cheatham, Davidson, Robertson, Sumner, and Williamson Counties, Tennessee" Final Approved TMDL. 17 April 2008. Accessed 19 December 2008. <http://www.tdec.net>

**Construction**

**Building Reports**

2016/17

Warren Garrett

**Goodlettsville Codes Department Building Report July 2016**

<u>Permit</u>	<u>Date</u>	<u>Cost</u>	<u>Map</u>	<u>Parcel</u>	<u>Lot</u>	<u>Address</u>	<u>Owner</u>	<u>License</u>	<u>Type Str</u>	<u>County</u>
<b><u>New Residential</u></b>										
20160168	07/06/2016	377,041.00	N/A	N/A	93	743 Burgess Dr.	Meritage Homes	58003	New Residential	Sumner
20160169	07/06/2016	377,041.00	N/A	N/A	92	739 Burgess Dr.	Meritage Homes	58003	New Residential	Sumner
20160175	07/06/2016	682,566.00	25.03	11	N/A	500 Moncrief Dr.	Drees/Rodriguez	46955	New Residential	Davidson
20160180	07/26/2016	311,179.00	N/A	N/A	175	675 Fall Creek Circle	Meritage Homes	58003	New Residential	Sumner
20160181	07/26/2016	306,265.00	N/A	N/A	174	671 Fall Creek Circle	Meritage Homes	58003	New Residential	Sumner
20160184	07/27/2016	306,265.32	N/A	N/A	177	683 Fall Creek Circle	Meritage Homes	58003	New Residential	Sumner
20160185	07/27/2016	334,032.00	N/A	N/A	176	679 Fall Creek Circle	Meritage Homes	58003	New Residential	Sumner

**Total 2,694,389.32**

**New Commercial**

**Total 0.00**

**Additions & Remodeling**

20160166	07/06/2016	20,000.000	18.16	10		435 N. Main St.	31 W. Liquors	56809	Commercial Remodel	Davidson
20160167	07/06/2016	15,000.00	26.02	2		110 Northgate Dr.	Red Roof Inn	Signs Inc.	Sign Changeout	Davidson
20160170	07/13/2016	500.00	142	8		845 Springfield Hwy.	Lavolia Smith	Owner	Sign	Sumner
20160171	07/18/2016	0.00	25.4	113		132 S. Main St.	Tom Lochbihler	Owner	Fire/Life Safety	Davidson
20160172	07/14/2016	42,000.00	143N	6		313 Buffalo Run	Kenneth Reeves	Owner	Residential Remodel	Sumner
20160173	07/18/2016	0.00	25.8	12		311 S. Main St.	Town Cleaners	Owner	Temp.,Signs	Davidson
20160176	07/20/2016	21,000.00	140P	G16	69	2055 Katherine Dr.	Janet O'Farrell	Owner	Deck Cover	Sumner
20160179	07/25/2016	16,000.00	26.6A	21	21	231 Wyndom Ct.	Deana Willis	53475	Repair Brick	Sumner
20160182	07/27/2016	1,400.00	26.00	155	Suite 4	846 Conference Dr.	Smith, Sholar, Milliken Law	Alpha Signs	Sign	Davidson
20160183	07/26/2016	1,000.00	25.4	113		132 S. Main St.	TomLochBihler/Chic Antiqu	Owner	Sign	Davidson

**Total 116,900.00**

**Total New Residential 2,694,389.32**  
**Total New Commercial 0.00**  
**Total Add/Remodels 116,900.00**  
**Total All Permits 2,811,289.32**

**Single Family Dwellings**  
**Davidson 1**  
**Sumner 6**  
**Total 7**



**Goodlettsville Codes Department Building Report September 2016**

Permit	Date	Cost	Map	Parcel	Lot	Address	Owner	License	Type Str	County
<u>New Residential</u>										
20160240	09/09/2016	361,833.00	N/A	N/A	34	72 Burgess Dr.	Meritage Homes	58003	New Residential	Sumner
20160241	09/09/2016	358,228.00	N/A	N/A	33	738 Burgess Dr.	Meritage Homes	58003	New Residential	Sumner
20160247	09/23/2016	331,780.00	N/A	N/A	37	368 Old Stone Rd.	Meritage Homes	58003	New Residential	Sumner
20160248	09/23/2016	350,702.00	143NB	12	180	403 Page Drive	Randall Garrett	63555	New Residential	Sumner
20160250	09/26/2016	317,601.00	N/A	N/A	32	734 Burgess Drive	Meritage Homes	58003	New Residential	Sumner
<b>Total</b>		<b>1,720,144.00</b>								

**New Commercial**

**Total 0.00**

**Additions & Remodeling**

20160225	09/01/2016	0,000	143A	19.3	22	104 Marshall Greene	David Slessinger	60225	HVAC changeout	Sumner
20160232	09/06/2016	3,500.00	19.13	85	12	223 Connell St.	Mid State Contracting	Mid State Contract.	Sign	Davidson
20160236	09/09/2016	4,800.00	26.1	127		150 Long Hollow	Tri Star Energy/ Twice Daii	Premier Signs	Sign	Davidson
20160235	09/08/2016	0.00	143A	34		106 Yvonne Ct.	Paul Yim	60225	HVAC changeout	Sumner
20160237	09/09/2016	26,000.00			22	320 Long Hollow Pike	Taco Bell	Premier Signs	Sign	Davidson
20160238	09/09/2016	5,000.00	25.08	64		213 Shevel Dr.	J. Gomez	Owner	Residential Remodel	Davidson
20160242	09/14/2016	1,000.00	143B	22	132	1002 Emily Drive	Jeffrey Curtis	Owner	Deck/Ramp	Sumner
20160243	09/15/2016	4,000.00	25.08	19		417 S. Main St.	Fast Hearing Aid Group	Allsion Signs	Sign	Davidson
20160244	09/16/2016	15,000.00	26.02	16		515 Hanover Dr.	Kevin Christian	65520	Fire Rebuild	Davidson
20160246	09/21/2016	2,000,000.00	143P	4		400 Loretra Drive	Goodlettsville Nazarene C	Church addition	52084	Sumner
20160249	09/26/2016	15,000.00	143C	A-1	1	102 S. Wymridge Way	Ronda Lowe	Owner	Residential Remodel	Sumner
20160251	09/27/2016	63,975.00	25.8	2	86	215 Rosehill Dr.	Jeff Brown	21549	Residential Remodel	Davidson
20160254	09/29/2016	18,000.00	14.51B	3		405 Mason Lane	Thomas Crowley	Owner	Residential Agitation	Sumner
20160254	09/30/2016	74,000.00	141	3		868 Springfield Hwy.	Stacy Humphrey	66219	Fire Rebuild	Sumner
<b>Total</b>		<b>2,230,275.00</b>								

<b>Total New Residential</b>	1,720,144.00	0	Single Family Dwellings
<b>Total New Commercial</b>	0.00	0	Davidson
<b>Total Add/Remodels</b>	2,230,275.00	5	Sumner
<b>Total All Permits</b>	<b>3,950,419.00</b>	<b>5</b>	<b>Total</b>



Goodlettsville Codes Department Building Report November 2016

<u>Permit</u>	<u>Date</u>	<u>Cost</u>	<u>Map</u>	<u>Parcel</u>	<u>Lot</u>	<u>Address</u>	<u>Owner</u>	<u>Contractor's License</u>	<u>Type Str</u>	<u>County</u>
<u>New Residential</u>										
20160304	11/21/2016	187,165.00	33.06	55	90	205 Solitude Circle	Morgan Homes	36713	New Residential	Davidson
<b>Total</b>		<b>187,165.00</b>								

New Commercial **Total** 0.00

<u>Additions &amp; Remodeling</u>	<u>Date</u>	<u>Cost</u>	<u>Map</u>	<u>Parcel</u>	<u>Lot</u>	<u>Address</u>	<u>Owner</u>	<u>Contractor's License</u>	<u>Type Str</u>	<u>County</u>
20160291	11/01/2016	1,000.000	26.13	69		709 Rivergate Pkwy.	Performance Electronics	Homeowner	Carport	Davidson
20160292	11/01/2016	7,000.00	33.08	38		422 Gates Road	C. Paredes	Owner	Addition	Davidson
20160295	11/02/2016	30,000.00	140	85		3033 Patton Branch	Billy Barnfield	Owner	Accessory Structure	Sumner
20160297	11/04/2016	20,000.00	18.12	26		110 Mavella Dr.	J.Payne	Owner	Accessory Structure	Davidson
20160298	11/08/2016	3,600.00	143B	8	8	103 Justin Ct.	Durante Comp.	67475	Deck	Sumner
20160299	11/11/2016	200.00	18.16			210 N. Main Street	Calming Studios	Owner	Sign	Davidson
20160300	11/14/2016	4,000.00	34.01	1		313 Blubird Drive	Schmidle Dentist/ProMas	Allison Signs	Sign	Davidson
20160301	11/15/2016	13,000.00	143M	10	39	1274 Twelve Stones Cros	Bobby Colvin	27884	Cover Deck	Sumner
20160302	11/11/2016	25,000.00	143F	45		1155 Willis Branch Rd.	Bruce McCandless	Owner	Accessory Structure	Sumner
20160303	11/21/2016	0.00	143A	31		107 Yvonne Ct.	John Anderson	21520	Mechanical	Sumner
20160305	11/28/2016	0.00	18.16	5		404 Fannin Dr.	Roger Trusty	Owner	Accessory Structure	Davidson
<b>Total</b>		<b>103,800.00</b>								

**Total New Residential** 187,165.00  
**Total New Commercial** 0.00  
**Total Add/Remodels** 103,800.00  
**Total All Permits** 290,965.00

**Single Family Dwellings**  
 Davidson 1  
 Sumner 0  
**Total** 1

**Goodlettsville Codes Department Building Report December 2016**

<u>Permit</u>	<u>Date</u>	<u>Cost</u>	<u>Map</u>	<u>Parcel</u>	<u>Lot</u>	<u>Address</u>	<u>Owner</u>	<u>Contractor's License</u>	<u>Type Str</u>	<u>County</u>
<u>New Residential</u>										
20160315	12/13/2016	865,000.00				3071 Patton Branch Rd.	Dennis Dean	62964	New Residential	Sumner
<b>Total</b>		<b>865,000.00</b>								
<u>New Commercial</u>										
<b>Total</b>		<b>0.00</b>								
<u>Additions &amp; Remodeling</u>										
20160306	12/02/2016	0.000	18.16	98		429 N Main St.	Time Machine	Owner	Fire/Life Safety	Davidson
20160310	12/08/2016	650,000.00	143J	1		460 Long Hollow Pk.	Publix	12103	Addition	Sumner
20160312	12/09/2016	91,000.00	19.14	10		314 Long Hollow Pk.	KFC	61703	Commercial Remodel	Davidson
20160314	12/09/2016	0.00	25.08	83		600 S. Main Street	Orbit Healthfood	Owner	Temp. Sign	Davidson
20160316	12/13/2016	6,000.00	143H	14		704 Loretta Drive	Dennis Erickson	47807	Deck	Sumner
20160317	12/19/2016	20,000.00	26.1	18		619 Wade Circle	Crown Industries	59029	Residential Remodel	Davidson
20160318	12/19/2016	500.00	25.8	54	D	601 S. Main Street	Family Hair Braiding	Owner	Sign	Davidson
20160320	12/19/2016	1,000.00	18.12	25		112 Mavella Ct.	Ta Tyven	Owner	Shed	Davidson
20160324	12/21/2016	110,000.00	19.13	74		300 Cartwright	Annette Wilson	Owner	Sign	Davidson
20160325	12/21/2016	0.00	143N	13		506 Debra Drive	Terri Fricon	Lamar Advert.	Mechanical Changeou	Sumner
20160326	12/25/2016	18,000.00	143F	39		200 Abiding Place	Stillwell	67686	Patio Cover	Sumner
20160327	12/28/2016	100,000.00	143H	4	7	603 Clifton Drive	R. Deakins	52995	Residential Addition	Sumner
<b>Total</b>		<b>996,500.00</b>								
<b>Total New Residential</b>		<b>865,000.00</b>								
<b>Total New Commercial</b>		<b>0.00</b>								
<b>Total Add/Remodels</b>		<b>996,500.00</b>								
<b>Total All Permits</b>		<b>1,861,500.00</b>								

Single Family Dwellings  
Davidson 0  
Sumner 1  
Total 1

**Goodlettsville Codes Department Building Report January 2017**

<u>Permit</u>	<u>Date</u>	<u>Cost</u>	<u>Map</u>	<u>Parcel</u>	<u>Lot</u>	<u>Address</u>	<u>Owner</u>	<u>Contractor's License</u>	<u>Type Str</u>	<u>County</u>
<b>New Residential</b>										
20170019	01/06/2017	229,548.00		N/A	4	506 Elba Drive	Thomas Campbell	Owner	New Residential	Sumner
20170006	01/10/2017	340,000.00		N/A	81	371 Old Stone Road	Meritage Homes	58003	New Residential	Sumner
20170017	01/29/2017	490,000.00		N/A	3	2037 Crencor Drive	Mark Writtesman	Owner	New Residential	Sumner
20170001	01/13/2017	1,188,682.00	34.01	units	53-60	Cobblestone Place 53-60	Kevin Hyneman Co.	26156	New Townhomes	Davidson
20170002	01/13/2017	742,926.00	34.01	units	28-32	Cobblestone Place 28-32	Kevin Hyneman Co.	26156	New Townhomes	Davidson
20170003	01/03/2017	594,341.00	34.01	units	24-27	Cobblestone Place 24-27	Kevin Hyneman Co.	26156	New Townhomes	Davidson
	<b>Total</b>	<b>2,396,815.00</b>								
<b>New Commercial</b>										
20170009	01/11/2017	7,825,902.00		19	3	251 Northcreek Blvd.	Holiday Inn	21159	New Commercial	Davidson
20170005	01/05/2017	560,000.00		18.12	60	610 N. Main Street	Carl McWhirter	65051	New Commercial	Davidson
	<b>Total</b>	<b>8,385,902.00</b>								
<b>Additions &amp; Remodeling</b>										
20160333	01/03/2016	2,000,000	33.12	96		202 Friendship Dr.	Woods	Owner	Residential Remodel	Davidson
20170008	01/09/2017	1,000.00				124 Lampley Ct.	Melvin Boyd	Homeowner	Shed	Sumner
20170010	01/13/2017		25.04	99	A	215 S. Main Street	Drystar	Owner	Fire/Life Safety	Davidson
20170012	01/18/2017	5,000.00	26	104	Suite 14	900 Conference Dr.	La Plaza Mexican Grill	184760	Sign	Davidson
20170014	01/24/2017	200,000.00	26.1	30		500 Professional Parkway TT TN, Voices For Children	Bruce Williams	48373	Commercial Remodel	Davidson
20170015	01/26/2017	24,000.00				730 Long Hollow Pike	Bethlehem Miss. Baptist	Owner	Residential Plumbing	Sumner
20170016	01/27/2017	1,000.00				879 Long Hollow Pike	Bethlehem Miss. Baptist	Owner	Shed for Church	Sumner
20170018	01/31/2017	8,500.00	18.16	158		111 Payne Street	Salvadore Zaragoza	Owner	Residential Remodel	Davidson
	<b>Total</b>	<b>241,500.00</b>								
<b>Total New Residential</b>										
<b>Total New Commercial</b>										
<b>Total Add/Remodels</b>										
<b>Total All Permits</b>										
		2,396,815.00				Single Family Dwellings	17 Resid. Townhomes	(Cobblestone)		
		8,385,902.00				Davidson	3 single family dwelling			
		241,500.00				Sumner				
		11,024,217.00				Total	20			

**Goodlettsville Codes Department Building Report February 2017**

<u>Permit</u>	<u>Date</u>	<u>Cost</u>	<u>Map</u>	<u>Parcel</u>	<u>Lot</u>	<u>Address</u>	<u>Owner</u>	<u>Contractor's License</u>	<u>Type Str</u>	<u>County</u>
<u>New Residential</u>										
20170031	2/20/2017	1,288,265.00			33-40	604 Alta Loma/Cobblestone	Mid-Town Capital	26155	8 unit townhomes	Davidson

**Total**

1,288,265.00

**New Commercial**

**Total**

0.00

**Additions & Remodeling**

20170022	2/6/2017	13,000.000		34.02		907 Rivergate Parkway	Duensing Chiropractic	Owner	Sign	Davidson
20170024	2/9/2017	0.00		25.04	A	215 S. Main Street	Drystar Cleaners	Owner	Temp. sign	Davidson
20170026	2/6/2017	1,500.00		25		1264 Hitt Lane	Thistlestop Inn	Allison Signs	Sign	Davidson
20170028	2/16/2017	1,000.00		25.12		708 S. Main(Dickerson)	Tom Anderson	Owner	Commercial Remodel	Davidson
20170029	2/16/2017	50,400.00		26		865 Conference Drive	Marriott	65194	Commercial Remodel	Davidson
20170033	2/24/2017	0.00		26.1	8	136 S. Main St.	Sweet Tea and Shopping	Owner	Temp. Sign	Davidson
20170035	2/6/2017	3,000.00		25.4	113	132 S. Main St.	Chic Artique	Owner	Commercial Remodel	Davidson
20170039	2/24/2017	6,500.00		19.13	106	323 Cartwright St.	Motel 6	Columbia Neon Sign	Commercial Remodel	Davidson
20170041	2/15/2017	0.00		Copper	Creek	0 Fall Creek Circle	Meritage Homes	Owner	Blasting	Sumner
20170049	2/24/2017	75,000.00		25.08	2	215 Rosehill Dr.	Jeff Brown	63389	Fire Damage /Resid	Davidson
20170052	2/27/2017	43,000.00		143NB	12	403 Page Drive	Randy Meeks	67226	Inground Pool	Sumner

**Total**

193,400.00

**Total New Residential**

1,288,265.00

**Total New Commercial**

0.00

**Total Add/Remodels**

193,400.00

**Total All Permits**

1,481,665.00

**Single Family Dwellings**

Davidson

Sumner

Total

8 Resid. Townhomes

0

8

(Cobblestone)

**Goodlettsville Codes Department Building Report March 2017**

<u>Permit</u>	<u>Date</u>	<u>Cost</u>	<u>Map</u>	<u>Parcel</u>	<u>Lot</u>	<u>Address</u>	<u>Owner</u>	<u>Contractor's License</u>	<u>Type Str</u>	<u>County</u>
<b><u>New Residential</u></b>										
20170058	3/10/2017	364,948.00	33.06	47	82	408 Solitude Circle	CRC Homes	60868	New Residential	Davidson
20170077	3/24/2017	227,471.00	18.16	22	2	401 Moncrief Ave.	Jebinel/Mariela Puente	Homeowner	New Residential	Davidson
<b>Total</b>		<b>589,419.00</b>								

**New Commercial**

**Total 0.00**

**Additions & Remodeling**

20170057	3/10/2017	30,000.00	143H	40	38	503 W. Angela	Wayne Wentz	Owner	Residential Remodel	Sumner
20170024	3/14/2017	20,000.00	19.13	90		404 Church Street	Mark Morris	40220	house moving/Remoc	Davidson
20170026	3/10/2017	0.00	143J	10	54	507 Wallace Drive	Carla Crabb	Owner	Replace pool	Sumner
20170028	3/14/2017	50,000.00	25	198		1320 Hitt Lane	Dirk Wiley	14259	Inground Pool	Davidson
20170029	3/17/2017	1,200.00	18.12	76		102 Fannin Dr.	Five Star Market	Owner	Sign	Davidson
20170033	3/21/2017	12,000.00	18.16	154		203 Graves Drive	Mr. Fix It	Owner	Access. Building	Davidson
20170035	3/22/2017	16,000.00	143	79		600 Caldwell Dr.	Mark Liverman	Owner	Cover Porch	Sumner
20170076	3/24/2017	1,500.00	140P	16	62	102 Valerie Ct.	Jeff/Kathy Locke	Owner	Replace Patio/Deck	Sumner
20170078	3/24/2017	4,500.00	26.00			543 Space Park N	CWC logistics	Image 360	Sign	Davidson
20170079	3/28/2017	8,500.00	18.16	167		204 N. Main Street	Allstate Insurance	Signs Inc.	Sign	Davidson
20170081	3/28/2017	3,500.00	18.16	158	4	111 Payne Street	Salvador Zaragoza	Owner	Foundation Repair	Davidson

**Total 147,200.00**

**Total New Residential Single Family Dwellings**

**Total New Commercial Davidson 2**

**Total Add/Remodels Sumner 0**

**Total All Permits Total 2**

**736,619.00**

**Goodlettsville Codes Department Building Report April 2017**

<u>Permit</u>	<u>Date</u>	<u>Cost</u>	<u>Map</u>	<u>Parcel</u>	<u>Lot</u>	<u>Address</u>	<u>Owner</u>	<u>Contractor's License</u>	<u>Type Str</u>	<u>County</u>
<b>New Residential</b>										
20170104	4/19/2017	366,135.00			22	255 Sydney Drive	Meritage Homes	58003	New Residential	Sumner
20170105	4/19/2017	366,135.00			6	250 Sydney Drive	Meritage Homes	58003	New Residential	Sumner
20170023	4/24/2017	439,563.00	143D	36	36	104 Copper Creek Drive	Dalamar Homes	58679	New Residential	Sumner
20170093	4/13/2017	1,201,613.00		units	41-48	604 Alta Loma/Cobblestone	Kevin Hynamen	26156	8 unit townhomes	Davidson
<b>Total</b>		<b>2,373,446.00</b>								
<b>New Commercial</b>										
20170098	4/13/2017	88,358.40	142	6.03		840 Forks Road	Glenda Tinnin	22522	New Commerical	Sumner
<b>Total</b>		<b>88,358.40</b>								
<b>Additions &amp; Remodeling</b>										
20170084	4/3/2017	0.00	25.08	53		503 S. Main Street	Michael Rippetoe	Owner	Demolition of shed	Davidson
20170089	4/10/2017	220,000.00	26	128	250-300	1000 Northchase	Georgia Pacific	29017	Commercial Remodel	Davidson
20170090	4/11/2017	19,200.00	143D	33	33	114 Copper Creek Drive	McCartney	48083	Residential Remodel	Sumner
20170091	4/11/2017	0.00	141	48.02		933 Louisville Hwy.	Surefire Fireworks	Owner	Fireworks Tent	Sumner
20170095	4/13/2017	80,000.00	19.14	100	8	250 Long Hollow Pike	J.D. Eatherly	26368	Commercial Remodel	Davidson
20170096	4/13/2017	20,000.00	143H	28		508 E. Angela Circle	Kimberly Carroll	Homeowner	Inground Pool	Sumner
20170099	4/13/2017	24,900.00	26.02	16		515 Hanover Dr.	Kevin Christian	Homeowner	Fire Rebuild/Remodel	Davidson
20170100	4/14/2017	1,000.00	26.09	62		405 Moss Trail	Keith Nelson	Homeowner	Accessory Structure	Davidson
20170102	4/17/2017	1,500.00	25.08	83	unit B	602 S. Main St.	Fortune and Fades	Owner	Commercial Remodel	Davidson
20170108	4/25/2017	3,000.00	140	59		3131 Patton Branch Rd.	Tom Ross	Owner	Accessory Structure	Sumner
20170112	4/25/2017	12,000.00	19.14	100		250 Long Hollow Pike	Roman Pharmacy	A-1 Signs	Sign	Davidson
20170114	4/27/2017	3,000.00	161	6		118 Stephanie Place	Mike Wilson	Owner	Pool	Sumner
<b>Total</b>		<b>384,600.00</b>								
<b>Total New Residential</b>		<b>2,373,446.00</b>								
<b>Total New Commercial</b>		<b>88,358.40</b>								
<b>Total Add/Remodels</b>		<b>384,600.00</b>								
<b>Total All Permits</b>		<b>2,846,404.40</b>								

Single Family Dwellings  
Davidson 8 (townhomes)  
Sumner 3

**Total 11**

**Goodlettsville Codes Department Building Report May 2017**

Permit	Date	Cost	Mag	Parcel	Lot	Address	Owner	Contractor's License	Type/Str	County
<b>New Residential</b>										
20170127	5/8/2017	246,820.00	33.06	61	53	604 Solitude Circle	Morgan Homes	36713	New Residential	Davidson
20170136	5/10/2017	475,793.00	143M	12	41	1013 Calebs Walk	Wheeler-Homes	2578	New Residential	Sumner
20170339	5/15/2017	395,167.00	N/A	N/A	20	111 Crockett Court	Meritage Homes	58003	New Residential	Sumner
20170093	5/15/2017	393,231.00	143D	N/A	8	258 Sydney Drive	Meritage Homes	58003	New Residential	Sumner
20170141	5/15/2017	326,934.00	N/A	N/A	21	107 Crockett Court	Meritage Homes	58003	New Residential	Sumner
20170142	5/15/2017	393,459.00	143D	N/A	13	278 Sydney Drive	Meritage Homes	58003	New Residential	Sumner
20170143	5/15/2017	320,972.00	N/A	N/A	18	108 Crockett Court	Meritage Homes	58003	New Residential	Sumner
20170144	5/15/2017	325,935.00	149D	N/A	17	265 Sydney Drive	Meritage Homes	58003	New Residential	Sumner
20170145	5/15/2017	393,231.00	N/A	N/A	19	112 Crockett Court	Meritage Homes	58003	New Residential	Sumner
20170146	5/15/2017	395,167.00	143D	N/A	7	254 Sydney Drive	Meritage Homes	58003	New Residential	Sumner
20170147	5/15/2017	381,055.00	143D	N/A	16	269 Sydney Drive	Meritage Homes	58003	New Residential	Sumner
20170157	5/19/2017	326,934.00	143D	N/A	14	277 Sydney Drive	Meritage Homes	58003	New Residential	Sumner
<b>Total</b>		<b>4,376,148.00</b>								

<b>New Commercial</b>										
20170132	5/9/2017	13,800,000.00	26.00	172	20	322 Northcreek Blvd.	Kingsborough Hospitality	51793	New Commercial	Davidson
20170167	5/31/2017	900,000.00	143JF	N/A	N/A	3102 Business Park Circle	Clark Higgs	62270	New Commercial	Sumner
<b>Total</b>		<b>14,700,000.00</b>								

<b>Additions &amp; Remodeling</b>										
20170117	5/1/2017	60,000.00	143H	13	29	602 Park Drive	Josh Pierce	Owner	Residential Remodel	Sumner
20170118	5/1/2017	1,000.00	34.02	63		900 Rivergate Pkwy	Regions Bank	18592	ADA Parking	Davidson
20170119	5/1/2017	10,000.00	121	105.11		1494 Madison Creek Rd.	Thomas Coop	Owner	Pool	Sumner
20170120	5/2/2017	135,180.00	18.16	158		111 Payne St.	Salvador Zaragoza	67627	Residential Remodel	Sumner
20170121	5/3/2017	0.00	143A	23	24	102 Park Court	Colfin Art-TN	37345	Demolition	Sumner
20170123	5/3/2017	4,000.00	143 B	28	8	401 Ellen Drive	Hugo Sanchez	Homeowner	Residential Remodel	Sumner
20170124	5/3/2017	1,000.00	33.08	91		308 Janette Ave.	Michael Lafferty	Homeowner	Enclose Cartport	Davidson
20170125	5/8/2017	0.00	143A	A8	33	808 Lynn Drive	David Taylor	21520	HVAC changeout	Sumner
20170128	5/8/2017	24,000.00	18.00	168		5544 Brick Church Pk.	Tommy Krantz	Homeowner	Pool Deck	Davidson
20170133	5/9/2017	1,000.00	140	22.14	2	1337 Madison Creek	William Smith	Homeowner	Pool	Sumner
20170135	5/10/2017	0.00	18.12	68		643 N. Main St.	TNT Wheel	Owner	Fire/Life Safety	Davidson
20170148	5/16/2017	34,000.00	143B	14		909 E. Cynthia Dr.	Jake Holt	Homeowner	Homeowner	Sumner
20170150	5/16/2017	52,500.00	143P	69	Suite 800	327 Caldwell Dr.	Southwestern	Owner	Commercial Buildout	Sumner
20170151	5/17/2017	550,000.00	26.05	134		515 Rivergate Parkway	LLE Holding	58834	Commercial Buildout	Davidson
20170152	5/17/2017	0.00	141	8		948 Springfield Hwy.	Mid-America Distributors	Owner	Fireworks Tent	Sumner
20170153	5/18/2017	0.00	18.16	60		318 N. Main Street	Goodlettsville Events Cen	owner	Sign	Davidson
20170154	5/18/2017	0.00	141	49		977 Louisville Hwy.	Discount Fireworks	Owner	Fireworks Tent	Sumner
20170156	5/18/2017	20,000.00	26.01	80		110 E. Cedar St.	Samuel Fakurie	Owner	Residential Remodel	Davidson
20170159	5/24/2017	0.00	25.8	54	Suite C	601 S. Main Street	A Music World	Owner	Fire/Life Safety	Davidson
20170165	5/31/2017	0.00				803 Meadowlark Drive	Edward Sims	Owner	Fire/Life Safety	Davidson
20170166	5/31/2017	1,000.00				130 S. Main Street	Chic Artique	Owner	Sign	Davidson
20170168	5/31/2017	600.00	18.12	68		643 N. Main St.	TNT Wheel	Owner	Sign	Davidson
20170149	5/16/2017	3,000.00	121	105.07	6	135 Hogan's Branch Road	Michael Busta	Owner	Pool	Sumner
<b>Total</b>		<b>897,280.00</b>								

Total New Residential	4,376,148.00
Total New Commercial	14,700,000.00
Total Add/Remodels	897,280.00

<b>Total All Permits</b>		
Single Family Dwellings	19,973,428.00	
Davidson 1		
Summer 11		
<b>Total</b>	<b>12</b>	

Permit Issue Date	Permit #	Address of Construction	Subdivision	Lot #	Parcel #	Living Sq. Ft.	Builder Name
06/12/2017	20170172	274 Sydney Dr.	Copper Creek	12	M 143D	2,630	Meritage Homes
06/05/2017	20170173	262 Sydney Dr.	Copper Creek	9	M 143D	2,687	Meritage Homes
06/12/2017	20170174	273 Sydney Dr.	Copper Creek	15	M 143D	2,684	Meritage Homes
06/12/2017	20170175	270 Sydney Drive	Copper Creek	11	M 143D	2,687	Meritage Homes
06/05/2017	20170176	1270 Twelve Stones Cr	Twelve Stones	37	M 143 M B /P 8.00	5,615	Drees Premier Homes
06/19/2017	20170192	1003 Caleb's Walk	Twelve Stones	46	Map 143MB/ P17.00	2,512	Krause Construction
06/23/2017	20170198	604 Alta Loma/Cobblestone Place	Units 107-1	8 units total		10,552	Kevin Hyneman Co. Inc.
06/01/2017	20170157	604 Alta Loma/Cobblestone Place	Units 49-5	4 units total		5,276	Kevin Hyneman Co. Inc.

Goodlettsville, TN 37072

Jun-17

18 total new construction/ 6 Sumner County  
12 Davidson County

**PUBLIC PARTICIPATION**

**Community/Stream Cleanup Events**

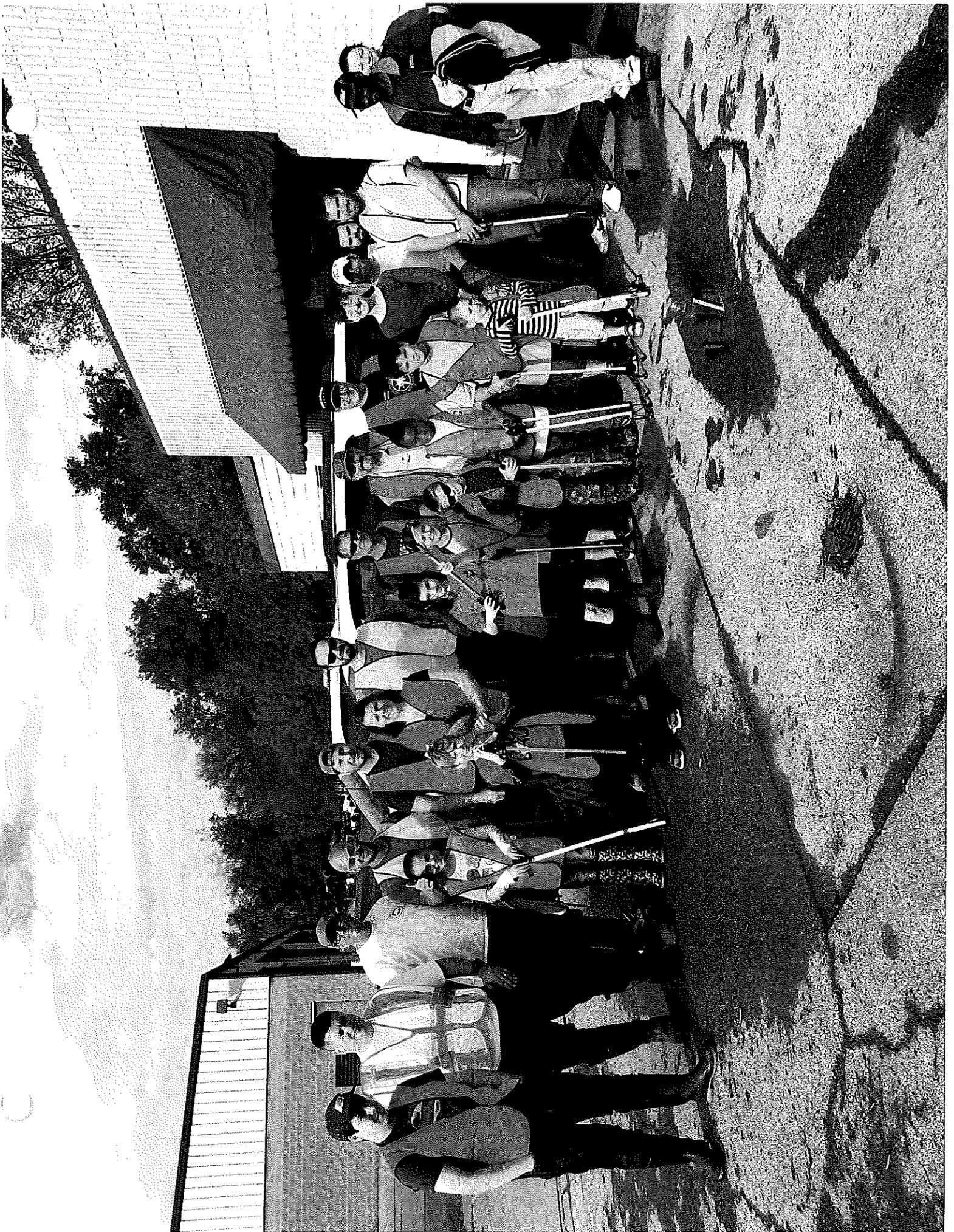
2016/17

Warren Garrett



DO NOT  
Park  
In Front  
Of  
Bay Doors

AED







October 15, 2016

[COMMUNITY/STREAM CLEANUP]

Litter Bags/Trash Total lbs.

1. Williamson Rd./Mansker Creek

- a. 16 Bags **640 lbs.**
- b. Other Items  
Tarp, carpeting, tire, buckets  
Car strut **870 lbs.**

2. Dry Creek

- a. 14 Bags **560 lbs.**
- b. Other Items  
Trash can, shopping carts  
**35 lbs.**

3. Slaters Creek

- a. 10 Bags **400 lbs.**
- b. Other Items  
Plastic, Mattress and Bedspring  
Plywood, tire, trash cans,  
Laundry basket **345 lbs.**

<u>October 15,2016</u>	<u>TOTAL</u>	<u>2,850 lbs.</u>
<u>April 16, 2016</u>	<u>TOTAL</u>	<u>3,560 lbs.</u>

Thank you Volunteers

Scout Troops

OHM

Western Kentucky University Students

Citizen Volunteers

(TOTAL of 39 Volunteers)

Sponsors

City of Goodlettsville

City of Millersville



## *Community Cleanup Event*

*March 25, 2017*

*Thanks to one and all* for the outstanding event success through your continued participation on our twice annual stream/community cleanup events. This year we surpassed participation of all past events, with a total of 42 volunteers! The City held its first ever joint event on the same day; which incorporated not only our community cleanup, but also the annual shredding event and free trash day for those who wished to clean up around the home more!

The community/stream cleanup event rocked with volunteers from Davidson County Democratic Chapter, local colleges, high schools, elementary schools, OHM, CEC, CRC, local residents as well as friends of the city and employees to assist with litter removal! All volunteers were invited to a free lunch for their hard work at the local Ryan's Buffet in Rivergate. This provided us the opportunity to network and fellowship with each other and to discuss future events and improve our custodial service to the residents through clean water and community education/participation.



Event Totals:

### **Williamson Road/Mansker Creek**

1. 600 lbs. of bagged litter, 20 lb. steel door, 40 lb. chaise lounge and chairs, 8 lb. tricycle, 40 lb. car rim and tire, 20 lb. miscellaneous clothing and other debris. TOTAL----- 728 lbs.

**Dry Creek Road**

1. 220 lbs. of bagged litter, 40 lbs. car tires and pallet, 25 lb. commode wood and battery, 80 lbs. old unused gallon paint cans still full. TOTAL-----365 lbs.

**Dry Creek**

1200 lbs. of wood and debris removed from creek. TOTAL----- 1200 lbs.

**Cartwright Street**

1. 160 lbs. of bagged litter, 5 lbs. mud flaps. TOTAL-----165 lbs.

**Exit 98**

1. 600 lbs. of bagged litter, 50 lb. truck tire. TOTAL-----650 lbs.

**Exit 97**

1. 740 lbs. bagged litter, 20 lb. tire, 40 lb. mattress. TOTAL-----800 lbs.

**TOTAL OF COMBINED LOCATIONS-----3908 lbs.**

**Thank you All!**

**GOOD HOUSEKEEPING**

**Employee Training**

2016/17

Warren Garrett

## Goodlettsville Good Housekeeping Training

---

November 8, 2016

**Good housekeeping and employee training are an integral part of a successful stormwater program. City maintenance facilities need to remain in compliance with BMPs to help improve water quality runoff. Employees need to be training on BMPs and stormwater quality management.**

It is important for an MS4 to have its own good housekeeping program in place so that they remain in compliance with water quality controls.

Employee stormwater training on an annual basis is required. Training lasts one to two hours.

Continued employee training via a classroom setting is also important in order to stay current on stormwater topics and trends.

Specified employees (Director, Inspector, Stormwater Coordinator and others deemed necessary) need to receive and maintain Level 1 Certification from TDEC.

### **Good Housekeeping and Employee Training**

#### **Best Management Practices**

##### Preface

The purpose of this Standard Operating Procedure Manual is to help educate and instruct employees on ways to reduce stormwater pollution and help prevent it in the future.

Topics covered range from good housekeeping to material management practices and vehicle maintenance to street sweeping and several items in between. Within each topic, sections such as a brief overall description of the SOP followed by an approved approach, application, procedures, maintenance, requirements, limitations and additional information may be covered.

##### Selection of Best Management Practices

In order to comply with the City of Goodlettsville Municipal Storm Water Permit, Best Management Practices (BMPs) must be employed at municipal buildings. BMPs may be selected from the options listed below or developed on a case-by-case basis as appropriate.

##### Contractor's Requirements

Ensure that contractors provide the City with a copy of their employee storm water awareness training, procedures for protecting the storm water system and any other types of documentation required by the City while conducting work on behalf of the City. Ensure that contracts will contain specific language to inform the contractor that they will comply with federal, state and local storm water rules and regulations as required by the Clean Water Act.

##### Employee Training

## Goodlettsville Good Housekeeping Training

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November 8, 2016

Training includes regular sessions with staff responsible for maintaining or managing a facility. Tailgate sessions should provide information on the selected storm water BMPs and methods for preventing discharge of pollutants into the storm drain system. Training should include a handout of this BMP to all City employees, which provides information on methods for preventing discharge of pollutants into the storm drain system. Records of the training sessions must be kept on file by each departmental stormwater coordinator. These records should include who conducted the training, who attended, subjects discussed, the date of each training session and the length of each session. Encourage employees to suggest modifications for existing BMPs and to create new BMPs; their suggestions will likely reduce labor and increase stormwater runoff protection. Periodically check employee's work practices to ensure correct implementation. If corrections need to be made, update the staff with the new information on the proper procedure to follow in the next training session.

This year's training will be conducted by John Chlarson from MTAS.

Please make sure all necessary employees attend.

November 8, 2016

Goodlettsville Visitor Center (Moss Wright Park @ 10 am)



### MEETING SIGN-IN SHEET

**Project:** Phase II Good Housekeeping Training      **Meeting Date:** 11-8-16

**Facilitator:** John Chlarson, P.E. MTAS, TNSA      **Place/Room:** Goodlettsville

Name	Signature	Department
Warren Garrett	W. Garrett	P.W.
JASON WILTON	Jan Wilton	P.W.
Jesse Proctor	Jesse Proctor	Parks and Rec.
Andy Garrett	Andy Garrett	PW
James Hicks	J. Hicks	Fire
Sherry Montgomery	Sherry Montgomery	PW
Ashton Loy	Ashton M Loy	P.W.
Floyd Denton	Floyd Denton Jr.	PW
Jeff McCormick	Jeff McCormick	PW & ECD
Stirling Burrell	Stirling Burrell	Sewer
Brian Nichols	Brian Nichols	SEWER
Craig Edgington	Craig Edgington	ENGINEERING
Wayne Sturges	Wayne Sturges	Public Works
Robert Lomez	Robert Lomez	Public Works
Roger Hunter	Roger Hunter	Public works
Julie Smith	Julie Smith	Public Works
Alicia Price	Alicia Price	Public Works



**PUBLIC PARTICIPATION**

**City of Goodlettsville Stormwater Ordinance  
amendments and review**

2016/17

Warren Garrett

# City of Goodlettsville Stormwater Ordinance

Revised October 13, 2016

Warren Garrett

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## CHAPTER 3

### STORMWATER MANAGEMENT

#### SECTIONS

- 18-501. General provisions.**
- 18-502. Definitions.**
- 18-503. Waivers.**
- 18-504. Land Disturbance Permit.**
- 18-505. Stormwater system design: Construction and Permanent stormwater management. Performance Standards.**
- 18-506. Buffer Zone Requirements.**
- 18-507. Permanent stormwater management: operation, maintenance, and inspection.**
- 18-508. Existing locations and ongoing developments.**
- 18-509. Illicit discharges.**
- 18-510. Enforcement.**
- 18-511. Penalties.**
- 18-512. Appeals.**
- 18-513. Maintenance

#### **18-501 General Provisions**

(1) Purpose. It is the purpose of this chapter to:

- (a) Protect, maintain, and enhance the environment of the city and the public health, safety and the general welfare of the citizens of the city, by controlling discharges of pollutants to the city's stormwater system.
- (b) Enable the city to comply with the National Pollution Discharge Elimination System permit (NPDES) General Permit for discharges from Small Municipal Separate Storm Sewer Systems (MS4) and applicable regulations, 40 CFR 122.26 for stormwater discharges;
- (c) Allow the city to exercise the powers granted in Tennessee Code Annotated § 68-221-1105, which provides that, among other powers cities have with respect to stormwater facilities, is the power by ordinance or resolution to:
  - (i) Exercise general regulation over the planning, location, construction, and operation and maintenance of stormwater facilities in the city, whether or not owned and operated by the city;

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- (ii) Adopt any rules and regulations deemed necessary to accomplish the purposes of this statute, including the adoption of a system of fees for services and permits;
  - (iii) Establish standards to regulate the quantity of stormwater discharged and to regulate stormwater contaminants as may be necessary to protect water quality;
  - (iv) Review and approve plans and plats for stormwater management in proposed subdivisions or commercial developments;
  - (v) Issue permits for stormwater discharges, or for the construction, alteration, extension, or repair of stormwater facilities;
  - (vi) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit;
  - (vii) Regulate and prohibit discharges into stormwater facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and
  - (viii) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of stormwater contamination, whether public or private.
- (2) Administrator: The City Manager, or designee, shall administer the provisions of this chapter.
- (3) Jurisdiction: This ordinance shall govern all properties within the corporate limits for the City of Goodlettsville, Tennessee.
- (4) Right of Entry: Designated City staff shall have right-of-entry, at reasonable times, on or upon the property of any person subject to this chapter and access to any permit/document issued hereunder. City staff shall be provided ready access to all parts of the premises for purposes of inspection, monitoring, sampling, inventory, records examination and copying, and performance of any other duties necessary to determine compliance with this chapter.
- Designated City staff shall have the right to set up on the property of any person subject to this chapter such devices, as are necessary, to conduct sampling and/or flow measurement of the property's stormwater operations or discharges.
- The City has the right to determine and impose inspection schedules necessary to enforce provisions of this chapter.

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(5) Stormwater management ordinance. The intended purpose of this ordinance is to safeguard property and public welfare by regulating stormwater quality and drainage while requiring temporary and permanent provisions for its control.

### 18-502. Definitions.

For the purpose of this chapter, the following definitions shall apply: Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

(1) "Administrative or Civil Penalties." Under the authority provided in Tennessee Code Annotated § 68-221-1106, the city declares that any person violating the provisions of this chapter may be assessed a civil penalty by the city of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.

(2) "As built plans" means drawings depicting conditions, elevation, location, and material of stormwater facilities as they were actually constructed.

(3) "Best Management Practices" ("BMP's") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMP's also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs could be incorporated by reference into this ordinance as if fully set out therein.

(4) "Borrow Pit" is an excavation from which erodible material (typically soil) is removed to be fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity for the purpose of this permit.

(5) "Buffer Zone" means a setback from the top of water body's bank of undisturbed vegetation, including trees, shrubs and herbaceous vegetation; enhanced or restored vegetation; or the re-establishment of native vegetation bordering streams, ponds, wetlands, springs, reservoirs or lakes, which exists or is established to protect those water bodies.

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(7) "Channel" means a natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.

(8) "Common plan of development or sale" is broadly defined as any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different operators.

(9) "Construction" is the erection, building, acquisition, alteration, reconstruction, improvement or extension of stormwater facilities; preliminary planning to determine the economic and engineering feasibility of stormwater facilities; the engineering, legal, fiscal and economic investigations and studies, surveys, designs, plans, working drawings, specifications, procedures, and other action necessary in the construction of stormwater facilities; and the inspection and supervision of the construction of stormwater facilities.

(10) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water that degrades the quality of the water.

(11) "Design storm event" means a hypothetical storm event, of a given frequency interval and duration, used in the analysis and design of a stormwater facility. The estimated design rainfall amounts, for any return period interval (i.e., 2-yr, 5-yr, 25-yr, etc.,) in terms of either 24-hour depths or intensities for any duration, can be found by accessing the NOAA National Weather Service Atlas 14 data for Tennessee. Other data sources may be acceptable with prior written approval by TDEC Water Pollution Control.

(13) "Discharge" means dispose, deposit, spill, pour, inject, seep, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, seeped, dumped, leaked, or placed by any means including any direct or indirect entry of any solid or liquid matter into the municipal separate storm sewer system.

(14) "Easement" means an acquired privilege or right of use or enjoyment that a person, party, firm, corporation, city or other legal entity has in the land of another.

(15) "Erosion" means the removal of soil particles by the action of water, wind, ice or other geological agents, whether naturally occurring or acting in conjunction with or promoted by human activities or effects.

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(16) "Erosion prevention and sediment control plan (EPSCP)" means a written plan (including drawings or other graphic representations) that is designed to minimize the erosion and sediment runoff at a site during construction activities.

(17) "Hotspot" means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. The following land uses and activities are deemed stormwater hotspots, but that term is not limited to only these land uses:

- (a) vehicle salvage yards and recycling facilities
- (b) vehicle service and maintenance facilities
- (c) vehicle and equipment cleaning facilities
- (d) fleet storage areas (bus, truck, etc.)
- (e) industrial sites (included on Standard Industrial Classification code list)
- (f) marinas (service and maintenance)
- (g) public works storage areas
- (h) facilities that generate or store hazardous waste materials
- (i) commercial container nursery
- (j) restaurants and food service facilities
- (k) other land uses and activities as designated by an appropriate review authority

(18) "Illicit connections" means illegal and/or unauthorized connections to the municipal separate stormwater system whether or not such connections result in discharges into that system.

(19) "Illicit discharge" means any discharge to the municipal separate storm sewer system that is not composed entirely of stormwater and not specifically exempted under §14-507(2).

(20) "Impervious surface area". The number of square feet of horizontal surface covered by buildings, and other impervious surfaces. All building measurements shall be made between exterior limits of the structure, foundations, columns or other means of support or enclosure.

Comment [WG1]: Insert new description, was not included previously

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(20) "Improved sinkhole" is a natural surface depression that has been altered in order to direct fluids into the hole opening. Improved sinkhole is a type of injection well regulated under TDEC's Underground Injection Control (UIC) program. Underground injection constitutes an intentional disposal of waste waters in natural depressions, open fractures, and crevices (such as those commonly associated with weathering of limestone).

Comment [WG2]: 21

(21) "Inspector" An inspector is a person that has successfully completed (has a valid certification from) the "Fundamentals of Erosion Prevention and Sediment Control Level I" course or equivalent course. An inspector performs and documents the required inspections, paying particular attention to time-sensitive permit requirements such as stabilization and maintenance activities. An inspector may also have the following responsibilities:

Comment [WG3]: 22

(a) oversee the requirements of other construction-related permits, such as Aquatic Resources Alteration Permit (ARAP) or Corps of Engineers permit for construction activities in or around waters of the state;

(b) update field Stormwater Pollution Prevention Plan(s) (SWPPP);

(c) conduct pre-construction inspection to verify that undisturbed areas have been properly marked and initial measures have been installed; and

(d) inform the permit holder of activities that may be necessary to gain or remain in compliance with the Construction General Permit (CGP) and other environmental permits.

(22) "Land disturbing activity" means any activity on property that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land-disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling, and excavation.

Comment [WG4]: 23

(23) "Maintenance" means any activity that is necessary to keep a stormwater facility in good working order so as to function as designed. Maintenance shall include complete reconstruction of a stormwater facility if reconstruction is needed in order to restore the facility to its original operational design parameters. Maintenance shall also include the correction of any problem on the site property that may directly impair the functions of the stormwater facility.

Comment [WG5]: 24

(24) "Maintenance agreement" means a document recorded in the land records that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.

Comment [WG6]: 25

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(25) "National Pollutant Discharge Elimination System permit" or a "NPDES permit" means a permit issued pursuant to 33 U.S.C. 1342.

Comment [WG7]: 26

(26) "Off-site facility" means a structural BMP located outside the subject property boundary described in the permit application for land development activity.

Comment [WG8]: 27

(27) "On-site facility" means a structural BMP located within the subject property boundary described in the permit application for land development activity.

Comment [WG9]: 28

(28) "Operator" in the context of stormwater associated with construction activity, means, any person associated with a construction project that meets either of the following two criteria:

Comment [WG10]: 29

(a) This person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically considered the owner or developer of the project or a portion of the project, and is considered the primary permittee; or

(b) This person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee and is considered a secondary permittee. It is anticipated at different phases of a construction project, different types of parties may satisfy the definition of "operator".

(29) "Peak flow" means the maximum instantaneous rate of flow of water at a particular point resulting from a storm event.

Comment [WG11]: 30

(30) "Person" means any and all persons, natural or artificial, including any individual, firm or association and any municipal or private corporation organized or existing under the laws of this or any other state or country.

Comment [WG12]: 31

(31) "Redevelopment" means building or constructing new infrastructure in an area that has previously been built or constructed on, and the old infrastructure is to be replaced with new.

Comment [WG13]: 32

(32) "Runoff" means that portion of the precipitation on a drainage area that is discharged from the area into the municipal separate storm sewer system.

Comment [WG14]: 33

(33) "Sediment" means solid material, both inorganic and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

Comment [WG15]: 34

(34) "Sedimentation" means soil particles suspended in stormwater that can settle in stream beds.

Comment [WG16]: 35

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(35) "Sinkhole" means a cavity in the ground providing a route for surface water to disappear underground.

Comment [WG17]: 36

(36) "Soils Report" means a study of soils on a subject property with the primary purpose of characterizing and describing the soils. The soils report shall be prepared by a qualified soils engineer, who shall be directly involved in the soil characterization either by performing the investigation or by directly supervising employees conducting the investigation.

Comment [WG18]: 37

(37) "Stabilization" means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.

Comment [WG19]: 38

(38) "Stormwater" means stormwater runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration and drainage.

Comment [WG20]: 39

(39) "Stormwater entity" means the entity designated by the city to administer the stormwater management ordinance, and other stormwater rules and regulations adopted by the city.

Comment [WG21]: 40

(40) "Stormwater management" means the programs to maintain quality and quantity of stormwater runoff to pre-development levels.

Comment [WG22]: 41

(41) "Stormwater management facilities" means the drainage structures, conduits, ponds, ditches, combined sewers, sewers, and all device appurtenances by means of which stormwater is collected, transported, pumped, treated or disposed of.

Comment [WG23]: 42

(42) "Stormwater management plan" means the set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMP's, concepts and techniques intended to maintain or restore quality and quantity of stormwater runoff to pre-development levels.

Comment [WG24]: 43

(43) "Stormwater System" or "System" means all stormwater facilities, stormwater drainage systems and flood protection systems of the City and all improvements thereto which operate to, among other things, control discharges and flows necessitated by rainfall events; and incorporate methods to collect, convey, store, absorb, inhibit, treat, prevent or reduce flooding, over drainage, environmental degradation and water pollution or otherwise affect the quality and quantity of discharge from such system.

Comment [WG25]: 44

(44) "Stormwater Pollution Prevention Plan (SWPPP)" means a written plan that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the stormwater, and a description of measures or practices to control these pollutants. It must be prepared and approved before construction begins. In order to effectively reduce erosion and sedimentation impacts, Best Management Practices (BMP's) must be designed, installed, and

Comment [WG26]: 45

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maintained during land disturbing activities. The SWPPP should be prepared in accordance with the current Tennessee Erosion and Sediment Control Handbook. The handbook is intended for use during the design and construction of projects that require erosion and sediment controls to protect waters of the state. It also aids in the development of SWPPPs and other reports, plans, or specifications required when participating in Tennessee's water quality regulations. All SWPPP's shall be prepared and updated in accordance with Section 3 of the General NPDES Permit for Discharges of Stormwater Associated with Construction Activities.

(45) "Stormwater runoff" means flow on the surface of the ground, resulting from precipitation.

Comment [WG27]: 46

(46) "Stream" means a surface water that is not a wet weather conveyance. [Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04(20)]. See also *Waters of the State*.

Comment [WG28]: 47

(47) "Structural BMP's" means facilities that are constructed to provide control of stormwater runoff.

Comment [WG29]: 48

(48) "Surety" is a Letter of credit or other acceptable form of assurance for completion of improvements as needed acceptable by the City Attorney, Administrator, and/or other City Personnel.

Comment [WG30]: 49

(49) "Surface water" includes waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other water courses, lakes and reservoirs.

Comment [WG31]: 50

(50) "Waste site" means an area where waste material from a construction site is deposited. When the material is erodible, such as soil, the site must be treated as a construction site.

Comment [WG32]: 51

(51) "Water Quality Buffer" see "Buffer".

Comment [WG33]: 52

(52) "Watercourse" means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

Comment [WG34]: 53

(53) "Watershed" means all the land area that contributes runoff to a particular point along a waterway.

Comment [WG35]: 54

(54) "Waters" or "waters of the state" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

Comment [WG36]: 55

(55) "Wetland(s)" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life

Comment [WG37]: 56

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in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas.

(56) "Wet weather conveyances" are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and are not suitable for drinking water supplies; and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow, there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months. (Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04(3)).

Comment [WG38]: 57

### 18-503. Waivers.

(1) General. No waivers will be granted to any construction or site work project. All construction and site work shall provide for stormwater management as required by this ordinance. However, alternatives to the primary requirement(s) for on-site permanent stormwater management may be considered, if:

(a) Management measures cannot be designed, built and maintained to infiltrate, evapotranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by 72 hours of no measurable precipitation. This first inch of rainfall must be 100% managed with no discharge to surface waters.

(b) It can be demonstrated that the proposed development will not discharge, during or after construction, stormwater runoff that contains contaminants or will otherwise not affect, impair or degrade adjacent or downstream properties, conveyances, or streams.

(c) Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the city.

(2) Downstream damage, etc. prohibited. In order to receive consideration, the applicant must demonstrate to the satisfaction of the administrator that the proposed alternative will not lead to any of the following conditions downstream:

(a) Deterioration of existing culverts, bridges, dams, structures or land;

(b) Degradation of biological functions or habitat;

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- (c) Accelerated streambank or streambed erosion or siltation;
- (d) Increased threat of flood damage to public health, life or property.

### (3) Alternative Request Procedure

For consideration of an alternative stormwater management measure, a formal request shall be submitted to the Administrator. The formal request shall be submitted with a stormwater management plan outlining why the primary stormwater management measure cannot be addressed and how the alternative measures will address the provisions outlined in this Ordinance. The plan shall demonstrate how the proposed development is not likely to impair attainment of the objectives of this chapter. The Administrator shall notify the appellant customer of the date of the alternative request in writing; such written notice shall be given at the address provided following review of the request. The decision made by the Administrator will be final and conclusive with no further administrative review.

### (4) Land Disturbance Permit not to be issued where alternatives requested.

No Land Disturbance Permit shall be issued where an alternative has been requested until the alternative is approved, unless allowed by the Administrator. If no alternative is approved, the plans must be resubmitted with a stormwater management plan that meets the primary requirement for on-site stormwater management. If no alternative is approved, the owner has thirty (30) days to resubmit the Land Disturbance Permit without facing additional fees. If the Land Disturbance Permit is submitted more than thirty (30) days following the alternative request decision by the Administrator, applicable fees will be charged.

## 18-504. Land Disturbance Permit

### (1) General

The Land Disturbance Permit is to be obtained by the owner(s) or owner(s) designee(s) for development or redevelopment of over an acre, or less than an acre if required by the Administrator. The Land Disturbance Permit is designed to track all applicable land disturbance activities and ensure they are monitored for compliant erosion prevention and sediment controls, the absence of illicit discharges leaving the site, and compliance with the City's TDEC NPDES MS4 general permit along with any applicable TDEC Construction General Permits, TDEC Aquatic Resources Alteration Permits (ARAP), and any other relevant permits. Tracking of

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these activities allows inspection, and in cases of non-compliance, enforcement actions to be taken.

### **(2) Exemptions**

The following land disturbance activities are exempt from the requirements of obtaining a Land Disturbance Permit:

- (a) Surface mining as is defined in Tennessee Code Annotated Section 59-8-202.
- (b) Such minor land disturbing activities as home gardens and individual home landscaping, home repairs, home additional or modifications, home maintenance work, and other related activities that result in no soil erosion leaving the site. (Erosion Prevention and Sediment Control (ESPC) practices may be enforced through individual building permits.)
- (c) Agriculture practices involving the establishment, cultivation or harvesting of products in the field or orchard, preparing and planting of pastureland, farm ponds, dairy operations, livestock and poultry management practices, and the construction of farm buildings.
- (d) Any project carried out under the technical supervision of NCRS, TDOT, TDEC, or USACE that is covered under applicable State or Federal construction permits.
- (e) Installation, maintenance, and repair of any underground public utility lines when such activity occurs on an existing road, street, or sidewalk which is hard surfaced and such street, curb, gutter, or sidewalk construction has been approved.
- (f) Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.

These activities may be undertaken without a Land Disturbance Permit; however, the person conducting these excluded activities shall remain responsible for conducting these activities within accordance with provisions of this Ordinance and other applicable regulations including responsibility for controlling sediment, illicit discharges, and runoff.

### **(3) Supplemental Permit**

In cases where a secondary owner/operator will be working within an area already covered by an existing Land Disturbance Permit that was issued under the name of a primary owner/operator, a supplemental Land Disturbance Permit shall be obtained prior to commencement of the secondary owner/operators work. The application fee may be waived for any supplemental permit. Where applicable, prior to issuance of the supplemental Land Disturbance Permit, the secondary owner/operator must show that coverage under the site's NPDES Construction

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General Permit has been obtained. Once covered by a Land Disturbance Permit, all primary and secondary owner/operators will be considered by the city as co-permittees. If co-permittee's involvement in the construction activities affects the same project site, they will be held jointly and severally responsible for complying with the terms of the permits issued for that site.

### **(4) Application**

Application for the Land Disturbance Permit shall be made to the Administrator by the property owner(s) and co-permittee (if applicable). Applications are available from the Public Works Department, or assigned division. No land disturbing activities shall take place prior to approval of the Land Disturbance Permit application. Application fees must be paid and the recorded Inspection and Maintenance Agreement filed (original returned to Public Works, or assigned division) prior to issuance of the Land Disturbance Permit.

### **(5) Permit Requirements**

The following are conditions of Land Disturbance Permit coverage. Any violation of these conditions will make the permit holder(s) subject to all enforcement actions and penalties outlined in this Ordinance.

(a) Submittal and approval by City staff and Board(s) of the erosion Prevention and Sediment Control plans.

(b) Compliance with the site's TDEC Construction General Permit, TDEC ARAP, TDEC Underground Injection Well Permit, FEMA Flood Plain Development Permit, and other Federal or State permits where applicable.

(c) Compliance with approved erosion prevention and sediment control plan and EPSC performance standards.

(d) Implementation and maintenance of appropriate erosion prevention and sediment control best management practices.

(e) Construction site operators must control wastes such as discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste at the construction site to avoid adverse impacts to water quality.

### **(6) Land Disturbance Surety**

Prior to the issuance of a permit for any land disturbance activity, the applicant shall be required to provide a surety to the City of Goodlettsville to guarantee completion of all land and grade stabilization measures and improvements as shown by the approved grading plan. For areas

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when potentially hazardous soil or drainage conditions exist due to types of soils, steep grades, flood plain development, streams, or drainage ditches, the applicant may be required, to provide a surety to guarantee completion of all land and grade stabilization measures and improvements as shown by the approved plan.

### (7) Permit Duration

Each Land Disturbance Permit shall expire and become null and void when one of the following has occurred:

- (a) Six months of no activity on the site has occurred.
- (b) Final stabilization of the site per the approved plans has occurred.
- (c) Issuance of a TDEC Notice of Termination (NOT). A copy must be provided to the City in order to close out the Land Disturbance Permit.
- (d) Three years from issuance of Permit or if new Federal or State regulations exist changing the scope of coverage where a new Land Disturbance Permit is required.
- (e) In cases of expiration of the Land Disturbance Permit, a permit may be re-issued with no additional fee if the plan and scope of the project submitted on the original Land Disturbance Permit does not significantly change. When significant change applies, new permit fees must be paid.

### **18-505. Stormwater system design: Construction and Permanent stormwater management performance standards**

#### **(1) Applicability**

This section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, land disturbance applications and grading applications. The requirements in this section shall apply to any new development or redevelopment site that meets one or more of the following criteria:

- (a) One (1) acre or more;
  - (1) New development that involves land disturbance activities of one (1) acre or more;
  - (2) Redevelopment that involves other land disturbance activity of one (1) acre or more;

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(b) Developments and redevelopments less than one acre of total land disturbance may also be required to obtain authorization under this ordinance if:

(1) The administrator has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;

(2) The administrator has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to waters of the state; or

(3) Any new development or redevelopment, regardless of size, that is defined by the administrator to be a hotspot land use.

(c) Other options:

(1) Change in elevation of property.

(2) Any land disturbance that requires coverage under a TDEC Construction General Permit.

(3) Any disturbance that requires coverage under a TDEC ARAP.

### **(2) General Requirements**

Stormwater at applicable developments and redevelopments shall be managed in accordance with the requirements contained within this section.

(a) Any discharge of stormwater or other fluid to an improved sinkhole or other injection well, as defined, must be authorized by permit or rule as a Class V underground injection well under the provisions of Tennessee Department of Environment and Conservation (TDEC) Rules, Chapter 1200-4-6.

(b) Stormwater design or BMP manuals.

(1) Adoption. The city adopts as its MS4 stormwater design and best management practices (BMP) manuals for stormwater management, construction and permanent, the following publications, which are incorporated by reference in this ordinance as if fully set out herein:

(i) TDEC Erosion Prevention and Sediment Control Handbook; most current edition.

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(ii) Tennessee Permanent Stormwater Management and Design Guidance Manual; most current edition.

(iii) Metro Nashville Stormwater Management Manual Volume 5, Low Impact Development

(iv) And/or a collection of city approved BMPs.

(2) The publications listed above include a list of acceptable BMPs including the specific design performance criteria and operation and maintenance requirements. These include city approved BMPs for permanent stormwater management including green infrastructure BMPs.

(3) Stormwater facilities that are designed, constructed and maintained in accordance with these publications will be presumed to meet the minimum water quality performance standards.

(c) Submittal of a copy of the NOC, SWPPP and NOT to the local MS4

(1) Permittees who discharge stormwater through an NPDES-permitted municipal separate storm sewer system (MS4) who are not exempted in section 1.4.5 (Permit Coverage through Qualifying Local Program) of TDEC's Construction General Permit (CGP) must provide proof of coverage under the Construction General Permit (CGP); submit a copy of the Stormwater Pollution Prevention Plan (SWPPP); and at project completion, a copy of the signed notice of termination (NOT) to the administrator. Permitting status of all permittees covered (or previously covered) under this general permit as well as the most current list of all MS4 permits is available at the TDEC's Data Viewer web site.

(2) Copies of additional applicable local, state or federal permits (i.e.: ARAP, etc.) must also be provided upon request.

(3) If requested by the city, these permits must be provided before the issuance of any land disturbance permit or the equivalent.

### **(3) Stormwater Pollution Prevention Plans for Construction Stormwater Management**

(a) Requirement to prepare a SWPPP: The applicant must prepare a stormwater pollution prevention plan (SWPPP) for all construction activities that complies with subsection (6) below. The purpose of this plan is to identify owner/operator activities that could cause

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pollutants in the stormwater, and to describe measures or practices to control these pollutants during project construction.

(b) Stormwater Pollution Prevention Plan general requirements: The erosion prevention and sediment control plan component of the SWPPP shall adhere to the following requirements.

(1) The potential for soil erosion and sedimentation problems resulting from land disturbing activity shall be accurately described;

(2) The measures that are to be taken to control soil erosion and sedimentation problems shall be explained and illustrated;

(3) The length and complexity of the plan must be commensurate with the size of the project, severity of the site condition, and potential for off-site damage.

(4) If necessary, the measures to control soil erosion and sedimentation problems that are described in the plan shall be phased so that changes to the site that alter drainage patterns or characteristics during construction will be addressed by an appropriate phase of the plan.

(5) The plan shall be sealed by a registered professional engineer or landscape architect licensed in the state of Tennessee.

(6) The plan shall conform to the requirements found in the General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000), and shall include at least the following:

(i) Project description - Briefly describe the intended project and proposed land disturbing activity including number of units and structures to be constructed and infrastructure required.

(ii) A topographic map with contour intervals of five (5) feet or less showing present conditions and proposed contours resulting from land disturbing activity.

(iii) All existing drainage ways, including intermittent and wet-weather. Include any designated floodways or flood plains.

(iv) A general description of existing land cover. Individual trees and shrubs do not need to be identified.

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(v) Stands of existing trees as they are to be preserved upon project completion, specifying their general location on the property. Differentiation shall be made between existing trees to be preserved, trees to be removed and proposed planted trees. Tree protection measures must be identified, and the diameter of the area involved must also be identified on the plan and shown to scale. Information shall be supplied concerning the proposed destruction of exceptional and historic trees in setbacks and buffer strips, where they exist. Complete landscape plans may be submitted separately. The plan must include the sequence of implementation for tree protection measures.

(vi) Approximate limits of proposed clearing, grading and filling.

(vii) Approximate flows of existing stormwater leaving any portion of the site.

(viii) A general description of existing soil types and characteristics and any anticipated soil erosion and sedimentation problems resulting from existing characteristics.

(ix) Location, size and layout of proposed stormwater and sedimentation control improvements.

(x) Existing and proposed drainage network.

(xi) Proposed drain tile or waterway sizes.

(xii) Approximate flows leaving site after construction and incorporating water run-off mitigation measures. The evaluation must include projected effects on property adjoining the site and on existing drainage facilities and systems. The plan must address the adequacy of outfalls from the development: when water is concentrated, what is the capacity of waterways, if any, accepting stormwater off-site; and what measures, including infiltration, sheeting into buffers, etc., are going to be used to prevent the scouring of waterways and drainage areas off-site, etc.

(xiii) The projected sequence of work represented by the grading, drainage and sedimentation and erosion control plans as related to other major items of construction, beginning with the initiation of excavation and

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including the construction of any sediment basins or retention/detention facilities or any other structural BMPs.

(xiv) Specific remediation measures to prevent erosion and sedimentation run-off. Plans shall include detailed drawings of all control measures used; stabilization measures including vegetation and non-vegetation measures, both temporary and permanent, will be detailed. Detailed construction notes and a maintenance schedule shall be included for all control measures in the plan.

(xv) Specific details for: the construction of stabilized construction entrance/exits, concrete washouts, and sediment basins for controlling erosion; road access points; eliminating or keeping soil, sediment, and debris on streets and public ways at a level acceptable to the city. Soil, sediment, and debris brought onto streets and public ways must be removed by the end of the work day to the satisfaction of the city. Failure to remove the sediment, soil or debris shall be deemed a violation of this ordinance.

(xvi) Proposed structures: location and identification of any proposed additional buildings, structures or development on the site.

(xviii) A description of on-site measures to be taken to recharge surface water into the ground water system through runoff reduction practices.

(xix) Specific details for construction waste management. Construction site operators shall control waste such as discarded building materials, concrete truck washout, petroleum products and petroleum related products, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality. When the material is erodible, such as soil, the site must be treated as a construction site.

#### **(4) Design Performance Standards and Requirements for Permanent Stormwater Management**

The following performance standards shall be addressed for permanent stormwater management at all applicable development and redevelopment sites effective as of fifteen (15) days following the adoption date of this Ordinance:

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(a) Runoff reduction performance standard. The first inch of rainfall on the development or redevelopment shall be one-hundred percent (100%) managed with no discharge to surface waters or the public storm sewer system. This standard shall be met using measures, alone or in combination, designed, built and maintained to infiltrate, evapotranspire or harvest and use the rainfall, in accordance with the site design layout practices and stormwater control measures provided in the Tennessee Permanent Stormwater Management and Design Guidance Manual or reference Metro Nashville's Low Impact Development design guidelines, most current edition.

(1) The pre-development infiltrative capacity of soils at the development or redevelopment must be taken into account in selection of infiltration-based stormwater control measures.

(2) The Tennessee Runoff Reduction Assessment Tool (TN-RRAT) or Metro Nashville's Stormwater Management Manual Volume 5, Low Impact Development design guidelines shall be used by the site designer to determine compliance with the runoff reduction requirement.

(3) Incentive standard: The following types of development or redevelopment shall receive a ten percent (10%) reduction in the volume of rainfall to be managed for any of the following types of development. Such incentives are additive such that a maximum reduction of 50% of the runoff reduction performance standard is possible for a project that meets all 5 development types:

(i) Redevelopment;

(ii) Brownfield redevelopment;

(iii) High density developments having greater than 7 units per acre;

(iv) Vertical density developments having a floor to area ratio (FAR) of 2 or greater than 18 units per acre; and

(v) Mixed use and transit oriented development that is located within ½ mile of a mass transit station.

(b) Runoff Reduction performance standard compliance. Developments and redevelopments that achieve 100% of the runoff reduction performance standard (or incentive standard if applicable) using only site design layout practices and/or stormwater control measures that are designed, built and maintained to infiltrate, evapotranspire or

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harvest and use the rainfall shall be exempt from compliance with the 80% TSS Removal performance standard.

(c) Runoff reduction limitations. Limitations to the application of runoff reduction requirements may prevent a development or redevelopment from meeting 100% of the runoff reduction requirement. Such limitations may include, but are not limited to:

(1) Natural physical conditions exist at the development or redevelopment that preclude or highly limit the use of infiltration practices. Such conditions include, but are not limited to, the following circumstances:

(i) the presence of sinkholes or other karst features;

(ii) a high prevalence of shallow bedrock;

(iii) a high prevalence of poorly-drained soils (i.e., hydrologic soil group D), such that soil amendments to promote infiltration must be extensive;

(iv) a high prevalence of contractive/expansive soils and their proximity to on-site or off-site structures;

(v) slopes greater than the maximums identified for the appropriate application of stormwater control measures;

(2) the development lacks the available area to create the necessary hydraulic capacity to fully achieve the runoff reduction requirement through infiltration or evapotranspiration; and,

(3) the proposed use for the development is inconsistent with the capture and re-use of stormwater;

(4) soil or topographic conditions at the development dictate that stormwater control measures which rely on infiltration to reduce stormwater volumes would be located in close proximity to on-site or off-site subsurface foundations, basements or crawlspaces where wet conditions or flooding is known or suspected to occur;

(5) conditions exist at the development that create a potential for introducing pollutants into the groundwater, unless pre-treatment is provided;

(6) pre-existing soil contamination is present in areas that are or could be subject to contact with infiltrated stormwater;

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(6) the placement of on-site or off-site utilities precludes the use of stormwater control measures that infiltration, evapotranspire or harvest and use rainfall;

(8) the site has a historic or archeological significance that cannot be disturbed as determined by the State Historic Preservation Office.

(c) 80% TSS (~~100 Microns and above~~) removal performance standard: Developments and redevelopments that cannot meet one hundred percent (100%) of the runoff reduction performance standard using the site design layout practices and stormwater control measures provided in the Tennessee Permanent Stormwater Management and Design Guidance Manual must treat the remainder of the stipulated amount of runoff prior to discharge from the development or redevelopment with a technology documented to remove eighty percent (80%) total suspended solids (TSS), unless an alternative provided under this Ordinance is approved. The treatment technology must be designed, installed and maintained to continue to meet this performance standard.

Comment [WG39]: New addition to clarify size of particle

(d) It can be demonstrated that multiple criteria rule out an adequate combination of infiltration, evapotranspiration, and reuse such as lack of available area to create the necessary infiltrative capacity; a site use that is inconsistent with capture and reuse of stormwater; physical conditions that preclude use of these practices.

(e) Stormwater discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, water supply reservoirs, etc.) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.

(f) Stormwater discharges from hotspots may require the application of additional structural BMP's and pollution prevention practices beyond runoff reduction and 80% TSS removal practices.

(g) Prior to or during the site design process, applicants for land disturbance permits shall consult with the administrator to determine if they are subject to additional stormwater design requirements.

(h) The calculations for determining peak flows shall be used for sizing all stormwater facilities.

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### **(5) Minimum peak discharge control requirements.**

The administrator may establish standards to regulate the quantity of stormwater discharged, therefore:

- (a) Stormwater designs shall meet the storm frequency storage requirements; and,
- (b) If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the administrator may impose any and all additional requirements deemed necessary to control the volume, timing, and rate of runoff.

### **(6) Permanent stormwater management plan requirements.**

(a) Requirement to prepare a permanent stormwater management plan: The permanent stormwater management plan shall be prepared and submitted to the administrator for all applicable developments and redevelopments.

(b) The permanent stormwater management plan shall include sufficient information to allow the administrator to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, the appropriateness of the measures proposed for managing stormwater generated at the project site, and design compliance with the performance standards and requirements for permanent stormwater management identified in this Ordinance.

(c) The permanent stormwater management plan shall be sealed by a registered professional engineer or landscape architect licensed in the state of Tennessee.

(d) The plan shall include, at a minimum, the elements listed below:

(1) Topographic base map: Topographic base map of the site which extends a minimum of 100 feet beyond the limits of the proposed development and indicates:

- (i) Existing surface water drainage including streams, ponds, culverts, ditches, sink holes, wetlands; and the type, size, elevation, etc., of nearest upstream and downstream drainage structures;
- (ii) Current land use including all existing structures, locations of utilities, roads, and easements;
- (iii) All other existing significant natural and artificial features;

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(iv) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading.

(2) A completed Site Assessment and Inventory Checklist (found in the Tennessee Permanent Stormwater Management and Design Guidance Manual).

(3) Proposed structural and non-structural BMPs and stormwater control measures;

(4) A written description of the site plan and justification of proposed changes in natural conditions may also be required;

(5) Calculations: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the approved stormwater design and BMP manuals. These calculations must show that the proposed stormwater management measures are capable of controlling runoff from the site in compliance with this chapter and the guidelines of the approved stormwater design and BMP manuals. Such calculations shall include:

(i) A description of the design storm frequency, duration, and intensity where applicable;

(ii) Time of concentration;

(iii) Soil curve numbers or runoff coefficients including assumed soil moisture conditions;

(iv) Peak runoff rates and total runoff volumes for each watershed area;

(v) Infiltration rates, where applicable;

(vi) Culvert, stormwater sewer, ditch and/or other stormwater conveyance capacities;

(vii) Flow velocities;

(viii) Data on the increase in rate and volume of runoff for the design storms referenced in the approved stormwater design and BMP manuals; and

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(ix) Documentation of sources for all computation methods and field test results.

(x) Results from the Tennessee Runoff Reduction Assessment Tool (TN-RRAT) or Metro Nashville's Stormwater Management Manual Volume 5, Low Impact Development design.

(6) Soils information: If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles and soil survey reports. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.

(7) 80% TSS ~~(100 Microns and above)~~ Removal Information: If 80% TSS Removal BMPs are included in the plan, then it must also include:

Comment [WG40]: Addition

(i) a narrative description of all runoff reduction limitations that exist at the development or redevelopment;

(ii) a map drawn to scale showing the location and boundaries of such limitations;

(iii) calculations showing the volume of runoff managed by runoff reduction stormwater control practices and the volume of runoff managed by 80% TSS Removal BMPs; and,

(iv) calculations showing compliance with the 80% TSS Removal performance standard.

### **(7) Maintenance and repair plan required.**

The design and planning of all permanent stormwater management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans will identify the parts or components of a stormwater management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.

### **18-506. Buffer Zones**

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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. Buffer width depends on the size of a drainage area. Streams or other waters with drainage areas less than one (1) square mile will require buffer widths of thirty (30) feet minimum. Streams or other waters with drainage areas greater than one (1) square mile will require buffer widths of sixty (60) feet minimum. The sixty (60) feet criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than thirty (30) feet at any measured location. The MS4 must develop and apply criteria for determining the circumstances under which these averages will be available. A determination that standards cannot be met may not be based solely on the difficulty or cost associated with implementation. Every attempt should be made for development and redevelopment activities not to take place within the buffer zone. If water quality buffer widths as defined above cannot be fully accomplished on-site, the MS4 must develop and apply criteria for determining the circumstances under which alternative buffer widths will be available. A determination that water quality buffer widths cannot be met on site may not be based solely on the difficulty or cost of implementing measures, but must include multiple criteria, such as: type of project, existing land use and physical conditions that preclude use of these practices.

Comment [WG41]: Remove this statement

Comment [WG42]: Remove statement (repetitious)

### Buffer Zone Requirements

(a) "Construction" applies to all streams adjacent to construction sites, with an exception for streams designated as impaired or Exceptional Tennessee waters, as designated by the Tennessee Department of Environment and Conservation. A 30-foot natural riparian buffer zone adjacent to all streams at the construction site shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state located within or immediately adjacent to the boundaries of the project, as identified using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals, TN Rules Chapter 0400-40-17). Buffer zones are not primary sediment control measures and should not be relied on as such. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be preserved between the top of stream bank and the disturbed construction area. The thirty (30) feet criterion for the width of the buffer zone can be established on an average

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width basis at a project, as long as the minimum width of the buffer zone is more than (fifteen) 15 feet at any measured location.

Buffer zone requirements for discharges into impaired or high quality waters:

A sixty (60) foot natural riparian buffer zone adjacent to the receiving stream designated as impaired or high quality waters shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified on a 7.5-minute USGS quadrangle map, or as determined by the director. Buffer zones are not sediment control measures and should not be relied upon as primary sediment control measures. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be established between the top of stream bank and the disturbed construction area. The 60-foot criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 25 feet at any measured location.

(b) "Permanent" new development and significant redevelopment sites are required to preserve water quality buffers along waters within the MS4. Buffers shall be clearly marked on site development plans, Grading Permit applications, and/or concept plans. Buffer width depends on the size of a drainage area. Streams or other waters with drainage areas less than 1 square mile will require buffer widths of 30 feet minimum. Streams or other waters with drainage areas greater than 1 square mile will require buffer widths of 60 feet minimum. The 60-foot criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 30 feet at any measured location.

### **18-507. Permanent stormwater management: operation, maintenance, and inspection.**

(1) As built plans. All applicants are required to submit actual as built plans for any structures located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be sealed by a registered professional engineer licensed to practice in Tennessee. A final inspection by the city is required before any portion of a performance, surety, security or bond will be released. The city shall have the discretion to adopt provisions for a partial pro-rata release of the performance security or performance bond on the completion of various stages of development. In addition,

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occupation permits shall not be granted until corrections to all BMP's have been made and accepted by the city. At a minimum, as-built plans must include the invert elevation, top of casting elevation, slope, location, and material of all pipes, drainage inlets/outlets, junctions, etc. Size and material of all outlet dissipation pads, ditch size, slope, and materials. Top of berm elevations on all drainage facilities, volume of all detention/retention facilities and location and description of all permanent stormwater BMPs.

### (2) Landscaping and stabilization requirements.

(a) Any area of land from which the natural vegetative cover has been either partially or wholly cleared by development activities shall stabilize. Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed no later than (14) days after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, temporary stabilization measures are not required:

(i) where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy ground conditions, stabilization measures shall be initiated as soon as practicable; or

(ii) where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within (14) days.

(b) Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. Unpacked gravel containing fines (silt and clay sized particles) or crusher runs will not be considered a non-eroding surface.

(c) The following criteria shall apply to re-vegetation efforts:

(i) Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over ninety percent (90%) of the seeded area.

(ii) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage

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to control erosion until the plantings are established and are capable of controlling erosion.

(iii) Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.

(iv) In addition to the above requirements, a landscaping plan must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.

(3) Inspection of stormwater management facilities. Periodic inspections of facilities shall be performed, documented, and reported in accordance with this chapter, as detailed in §16-506.

(4) Records of installation and maintenance activities. Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation of the stormwater facility, and of all maintenance and repairs to the facility, and shall retain the records for at least three (3) years. These records shall be made available to the city during inspection of the facility and at other reasonable times upon request.

(5) Failure to meet or maintain design or maintenance standards. If a responsible party fails or refuses to meet the design or maintenance standards required for stormwater facilities under this chapter, the city, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the stormwater management facility becomes a danger to public safety or public health, the city shall notify in writing the party responsible for maintenance of the stormwater management facility. Upon receipt of that notice, the responsible person shall have thirty (30) days to effect maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the city may take necessary corrective action. The cost of any action by the city under this section shall be charged to the responsible party and/or a lien placed on the property by the City.

### **18-508. Existing locations and ongoing developments.**

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(1) On-site stormwater management facilities maintenance agreement:

(a) Where the stormwater facility is located on property that is subject to a development agreement, and the development agreement provides for a permanent stormwater maintenance agreement that runs with the land, the owners of property must execute an *Inspection and Maintenance Agreement* that shall operate as a deed restriction binding on the current property owners and all subsequent property owners and their lessees and assigns, including but not limited to, homeowner associations or other groups or entities.

(b) The maintenance agreement shall:

(1) Assign responsibility for the maintenance and repair of the stormwater facility to the owners of the property upon which the facility is located and be recorded as such on the plat for the property by appropriate notation.

(2) Provide for a periodic inspection by the property owners in accordance with the requirements of subsection (5) below for the purpose of documenting maintenance and repair needs and to ensure compliance with the requirements of this ordinance. The property owners will arrange for this inspection to be conducted by a registered professional engineer licensed to practice in the State of Tennessee, who will submit a signed written report of the inspection to the administrator. It shall also grant permission to the city to enter the property at reasonable times and to inspect the stormwater facility to ensure that it is being properly maintained.

(3) Provide that the minimum maintenance and repair needs include, but are not limited to: the removal of silt, litter and other debris, the cutting of grass, cutting and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other stormwater facilities. It shall also provide that the property owners shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the MS4 BMP manual.

(4) Provide that maintenance needs must be addressed in a timely manner, on a schedule to be determined by the administrator.

(5) Provide that if the property is not maintained or repaired within the prescribed schedule, the administrator shall perform the maintenance and repair at its expense, and bill the same to the property owner. The maintenance agreement shall also provide that the administrator's cost of performing the maintenance shall be a lien against the property.

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### (2) Existing problem locations – no maintenance agreement.

(a) The administrator shall in writing notify the owners of existing locations and developments of specific drainage, erosion or sediment problems affecting or caused by such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance. Discharges from existing BMP's that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

(b) Inspection of existing facilities. The city may, to the extent authorized by state and federal law, enter and inspect private property for the purpose of determining if there are illicit non-stormwater discharges, and to establish inspection programs to verify that all stormwater management facilities are functioning within design limits. These inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of the city's NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other BMP's.

### (3) Owner/Operator Inspections. The owners and/or the operators of stormwater management practices shall:

(a) Perform routine inspections to ensure the BMPs are properly functioning. These inspections shall be conducted on an annual basis, at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at a site. Owners or operators shall maintain documentation of these inspections. The administrator may require submittal of this documentation.

(b) Perform comprehensive inspection of all stormwater management facilities and practices. These inspections shall be conducted once every five years, at a minimum. Such inspections must be conducted by either a professional engineer or landscape

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architect, licensed in the State of Tennessee. Complete inspection reports for these five year inspections shall include:

- (i) Facility type,
  - (ii) Inspection date,
  - (iii) Latitude and longitude and nearest street address,
  - (iv) BMP owner information (e.g. name, address, phone number, fax, and email),
  - (v) A description of current BMP conditions including, but not limited to: green infrastructure practices, grassy areas, forested areas, buffer areas, growing vegetation and soil properties; inlet and outlet channels and structures; embankments, slopes, and safety benches; spillways, weirs, and other control structures; and any sediment and debris accumulation,
  - (vi) Photographic documentation of BMPs, and
  - (vii) Specific maintenance items or violations that need to be corrected by the BMP owner along with deadlines and re-inspection dates.
- (c) Owners or operators shall maintain documentation of these inspections. The administrator may require submittal of this documentation.
- (4) Requirements for all existing locations and ongoing developments. The following requirements shall apply to all locations and development at which land disturbing activities have occurred previous to the enactment of this ordinance:
- (a) Denuded areas must be vegetated or covered under the standards and guidelines specified in 16-505 (2)(c)(i), (ii), (iii) and on a schedule acceptable to the administrator.
  - (b) Cuts and slopes must be properly covered with appropriate vegetation and/or retaining walls constructed.
  - (c) Drainage ways shall be properly covered in vegetation or secured with rip-rap, channel lining, etc., to prevent erosion.
  - (d) Trash, junk, rubbish, etc. shall be cleared from drainage ways.
  - (e) Stormwater runoff shall, at the discretion of the administrator be controlled to the maximum extent practicable to prevent its pollution. Such control measures may include, but are not limited to, the following:

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### (i) Ponds

- (1) Detention pond
- (2) Extended detention pond
- (3) Wet pond
- (4) Alternative storage measures

### (ii) Constructed wetlands

### (iii) Infiltration systems

- (1) Infiltration/percolation trench
- (2) Infiltration basin
- (3) Drainage (recharge) well
- (4) Porous pavement

### (iv) Filtering systems

- (1) Catch basin inserts/media filter
- (2) Sand filter
- (3) Filter/absorption bed
- (4) Filter and buffer strips

### (v) Open channel

- (1) Swale

(5) Corrections of problems subject to appeal. Corrective measures imposed by the administrator under this section are subject to appeal under section 16-510 of this chapter.

Comment [WG43]: Correct reference from 16-510 to 18-510

### 18-509. Illicit discharges.

- (1) Scope. This section shall apply to all water generated on developed or undeveloped land entering the city's separate storm sewer system.

## City of Goodlettsville Stormwater Ordinance

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(2) Prohibition of illicit discharges. No person shall introduce or cause to be introduced into the municipal separate storm sewer system any discharge that is not composed entirely of stormwater or any discharge that flows from stormwater facility that is not inspected in accordance with section 16-506 shall be an illicit discharge. Non-stormwater discharges shall include, but shall not be limited to, sanitary wastewater, commercial car wash wastewater, lawn mowing debris, lawn care chemicals, grease, soap, cleaning chemicals, radiator flushing disposal, spills from vehicle accidents, carpet cleaning wastewater, effluent from septic tanks, improper oil disposal, laundry wastewater/gray water, improper disposal of auto and household toxics. The commencement, conduct or continuance of any non-stormwater discharge to the municipal separate storm sewer system is prohibited except as described as follows:

(a) Uncontaminated discharges from the following sources:

- (i) Water line flushing or other potable water sources;
- (ii) Landscape irrigation or lawn watering with potable water;
- (iii) Diverted stream flows;
- (iv) Rising ground water;
- (v) Groundwater infiltration to storm drains;
- (vi) Pumped groundwater;
- (vii) Foundation or footing drains;
- (viii) Crawl space pumps;
- (ix) Air conditioning condensation;
- (x) Springs;
- (xi) Non-commercial washing of vehicles;
- (xii) Natural riparian habitat or wetland flows;
- (xiii) Swimming pools (if dechlorinated - typically less than one PPM chlorine);
- (xiv) Firefighting activities;

## City of Goodlettsville Stormwater Ordinance

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(xv) Any other uncontaminated water source.

(b) Discharges specified in writing by the city as being necessary to protect public health and safety.

(c) Dye testing is an allowable discharge if the city has so specified in writing.

(d) Discharges authorized by the Construction General Permit (CGP), which comply with Section 3.5.9 of the same:

(i) dewatering of work areas of collected stormwater and ground water (filtering or chemical treatment may be necessary prior to discharge);

(ii) waters used to wash vehicles (of dust and soil, not process materials such as oils, asphalt or concrete) where detergents are not used and detention and/or filtering is provided before the water leaves site;

(iii) water used to control dust in accordance with CGP section 3.5.5;

(iv) potable water sources including waterline flushings from which chlorine has been removed to the maximum extent practicable;

(v) routine external building washdown that does not use detergents or other chemicals;

(vi) uncontaminated groundwater or spring water; and

(vii) foundation or footing drains where flows are not contaminated with pollutants (process materials such as solvents, heavy metals, etc.).

(3) Prohibition of illicit connections. The construction, use, maintenance or continued existence of illicit connections to the municipal separate storm sewer system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(4) Reduction of stormwater pollutants by the use of best management practices. Any person responsible for a property or premises, which is, or may be, the source of an illicit discharge, may be required to implement, at the person's expense, the BMP's necessary to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed in compliance with

## City of Goodlettsville Stormwater Ordinance

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the provisions of this section. Discharges from existing BMP's that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

(5) Notification of spills. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting in, or may result in, illicit discharges or pollutants discharging into, the municipal separate storm sewer system, the person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials the person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, the person shall notify the city in person or by telephone, fax, or email, no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the city within three (3) business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three (3) years.

(6) No illegal dumping allowed. No person shall dump or otherwise deposit outside an authorized landfill, convenience center or other authorized garbage or trash collection point, any trash or garbage of any kind or description on any private or public property, occupied or unoccupied, inside the city.

(7) Hot Spots. The administrator is authorized to regulate hot spots. Upon written notification by the administrator, the property owner or designated facility manager of a hot spot area shall, at their expense, implement necessary controls and/or best management practices to prevent discharge of contaminated stormwater to the municipal separate storm sewer system. The administrator may require the facility to maintain inspection logs or other records to document compliance with this paragraph.

### **18-510. Enforcement.**

(1) Enforcement authority. The administrator shall have the authority to issue notices of violation, ~~court summons~~ and citations, and to impose the civil penalties provided in this section. Measures authorized include:

Comment [WG44]: New addition

(a) Verbal Warnings – At a minimum, verbal warnings must specify the nature of the violation and required corrective action.

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(b) Written Notices – Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.

(c) Citations with Administrative Penalties – The MS4 has the authority to assess monetary penalties, which may include civil and administrative penalties.

(d) Stop Work Orders – Stop work orders that require construction activities to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.

(e) Withholding of Plan Approvals or Other Authorizations – Where a facility is in noncompliance, the MS4's own approval process affecting the facility's ability to discharge to the MS4 can be used to abate the violation.

(f) Additional Measures – The MS4 may also use other escalated measures provided under local legal authorities. ~~The MS4 may issue a court summons to violators to achieve compliance when other enforcement measures have failed.~~ ~~The MS4 may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project's bond or directly billing the responsible party to pay for work and materials.~~

Comment [WG45]: New addition

### (2) Notification of violation:

(a) Verbal warning. Verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time, which time shall be approved by the inspector.

(b) Written notice. Whenever the administrator finds that any permittee or any other person discharging stormwater has violated or is violating this ordinance or a permit or order issued hereunder, the administrator may serve upon such person written notice of the violation. Within ten (10) days of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the administrator. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice of violation.

(c) Consent orders. The administrator is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the person to correct the noncompliance within a time

## City of Goodlettsville Stormwater Ordinance

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period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraphs (d) and (e) below.

(d) ~~Show cause hearing~~. The administrator may order any person who violates this chapter or permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ~~ten (10)~~ days prior to the hearing.

Comment [WG46]: Change to Court Summons

Comment [WG47]: Change to "thirty (30)"

(e) Compliance order. When the administrator finds that any person has violated or continues to violate this chapter or a permit or order issued thereunder, he may issue an order to the violator directing that, following a specific time period, adequate structures or devices be installed and/or procedures implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring, and management practices.

(f) Cease and desist and stop work orders. When the administrator finds that any person has violated or continues to violate this chapter or any permit or order issued hereunder, the administrator may issue a stop work order or an order to cease and desist all such violations and direct those persons in noncompliance to:

(i) Comply forthwith; or

(ii) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation; including halting operations except for terminating the discharge and installing appropriate control measures.

(g) Suspension, revocation or modification of permit. The administrator may suspend, revoke or modify the permit authorizing the land development project or any other project of the applicant or other responsible person within the city. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated upon such conditions as the administrator may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

## City of Goodlettsville Stormwater Ordinance

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Warren Garrett

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(h) Conflicting standards. Whenever there is a conflict between any standard contained in this chapter and in the BMP manual(s) adopted by the city under this ordinance, the strictest standard shall prevail.

### 18-511. Penalties.

(1) Violations. Any person who shall commit any act declared unlawful under this chapter, who violates any provision of this chapter, who violates the provisions of any permit issued pursuant to this chapter, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the administrator, shall be guilty of a civil offense.

(2) Penalties. Under the authority provided in Tennessee Code Annotated § 68-221-1106, the city declares that any person violating the provisions of this chapter may be assessed a civil penalty by the administrator of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.

(3) Measuring civil penalties. In assessing a civil penalty, the administrator may consider:

- (a) The harm done to the public health or the environment;
- (b) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
- (c) The economic benefit gained by the violator;
- (d) The amount of effort put forth by the violator to remedy this violation;
- (e) Any unusual or extraordinary enforcement costs incurred by the city;
- (f) The amount of penalty established by ordinance or resolution for specific categories of violations; and
- (g) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

(4) Recovery of damages and costs. In addition to the civil penalty in subsection (2) above, the city may recover:

- (a) All damages proximately caused by the violator to the city, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this chapter, or any other actual damages caused by the violation.

## City of Goodlettsville Stormwater Ordinance

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(b) The costs of the city's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this chapter.

(5) Referral to TDEC. Where the city has used progressive enforcement to achieve compliance with this ordinance, and in the judgment of the city has not been successful, the city may refer the violation to TDEC. For the purposes of this provision, "progressive enforcement" shall mean two (2) follow-up inspections and/or two (2) warning notifications. In addition, enforcement referrals to TDEC must include, at a minimum, the following information:

(a) Construction project or industrial facility location;

(b) Name of owner or operator;

(c) Estimated construction project or size or type of industrial activity (including SIC code, if known);

(d) Records of communications with the owner or operator regarding the violation, including at least two follow-up inspections, two warning letters or notices of violation, and any response from the owner or operator.

(6) Other remedies. The city may bring legal action to enjoin the continuing violation of this chapter, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.

(7) Remedies cumulative. The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one (1) or more of the remedies set forth herein has been sought or granted.

### **18-512. Appeals.**

Pursuant to Tennessee Code Annotated § 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this chapter may appeal said penalty or damage assessment to the city's governing body.

(1) Appeals to be in writing. The appeal shall be in writing and filed with the municipal recorder or clerk within fifteen (15) days after the civil penalty and/or damage assessment is served in any manner authorized by law.

(2) Public hearing. Upon receipt of an appeal, the city's governing body, or other appeals board established by the city's governing body shall hold a public hearing within forty-five (45) days. A minimum of ten (10) days prior notice of the time, date, and location of said hearing shall be published in a daily newspaper of general circulation and/or on the City's website. The notice

## City of Goodlettsville Stormwater Ordinance

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shall also be provided to the aggrieved party by registered mail and sent to the address provided by the aggrieved party at the time of appeal. The decision of the governing body of the City shall be final.

(3) Appealing decisions of the City's governing body. Any alleged violator may appeal a decision of the city's governing body pursuant to the provisions of Tennessee Code Annotated, title 27, chapter 8.

### 18-513. Maintenance

#### (1) Maintenance Responsibility

(a) Any Stormwater management facility or BMP which services individual property owners or subdivisions shall be privately owned with general routine Maintenance (controlling vegetative growth and removing debris), provided for by the owner(s). The City has the right, but not the duty to enter premises for Emergency repairs through a perpetual nonexclusive easement. The owner shall maintain a perpetual, non-exclusive easement, which allows for access for inspection and other Emergency Maintenance by the City.

(b) Any Stormwater management facility or BMP which services an individual subdivision in which the facility or BMP is within designated open areas or an amenity with an established homeowners association, or Inspection and Maintenance Agreement, shall be privately owned and maintained consistent with provisions of this ordinance. The City has the right, but not the duty to enter premises for Emergency repairs through a perpetual nonexclusive easement. The owner shall maintain a perpetual, nonexclusive easement, which allows for access for inspection and Emergency Maintenance by the City.

(c) Any Stormwater management facility or BMP which services commercial and industrial Development shall be privately owned and maintained consistent with the provisions of this Title. The City has the right, but not the duty to enter premises for Emergency repairs through a perpetual nonexclusive easement.

(d) All Regional Stormwater Management Facilities proposed by the owners, if accepted by the City Engineer and approved by the Board of Commissioners for dedication as a public regional facility shall be publicly owned and maintained.

(e) All other Stormwater management control facilities and BMP's shall be publicly owned and/or maintained only if accepted for Maintenance by the City through a formal agreement recorded at the Davidson/Sumner County, TN Register of Deeds. Existing or proposed drainage easements shall not constitute a formal agreement.

## City of Goodlettsville Stormwater Ordinance

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(f) The City Engineer may require dedication of privately owned Stormwater facilities which discharge to the City's Stormwater System.

**Comment [WG48]: Amended October 2016**

**PUBLIC EDUCATION/OUTREACH**

**Tennessee Environmental Council 100K Tree  
Day**

2016/17

Warren Garrett

Free trees for all of Tennessee

100K DAY

TECTN.org/100kTreeDay



FEB 25

While supplies last!

OUTERFRONT



***The annual tree planting*** in the State of Tennessee, also known by many as 100k tree day, is promoted and provided for through Tennessee Environmental Council or TEC. The goal is to repopulate as much of Tennessee as possible annually to improve landscaping, water quality, home values, air quality and provide riparian buffers for streambank protection and wildlife corridors.

The City of Goodlettsville is promoting our city support and participation of this program through distributorship for local residents to pick up their trees locally for planting, the public only need go online @ [www.tectn.com](http://www.tectn.com) and fill out a small questionnaire in order to receive up to 20 free trees. Although donations are encouraged, the trees are free for planting. The TEC also requires that participants watch a short video in order to properly plant their trees and also agree to send photos of planted trees back to TEC for promotional purposes.

The City of Goodlettsville also decided to raise the public outreach and education for the stormwater department to the next level by purchasing a one week advertisement on a digital display billboard located just south of the city limits for north bound traffic. The traffic count for north bound was approximately 82,528 vehicles per day at this location of Interstate 65 at the 386 Vietnam Veterans exit. The intent is to gauge the public outreach and response through TEC website and see how many individuals it reaches. Although the information is optional on the website, we hope that it generates enough information to justify future community programs such as stream and community cleanups for litter.

The billboard is digital which allows for the operator to cut costs since it is computer operated, which also allows for the customer to simply send a PDF photo to them for proper editing for size instead of purchasing a paper laminate for the standard billboard. It also is well lit for 24 hour coverage. Our contract was for a 7 day display, 24 hours a day displaying our ad 8 seconds every minute.

Last year we held a planting event and planted 300 trees as well as distributing an additional 200. This year our numbers drastically increased to 1900 trees distributed and planted by local residents and schools.

**PUBLIC EDUCATION/OUTREACH**

**W.E.T. program**

2016/17

Warren Garrett



## Water Education for Teachers Workshop

Moss-Wright Park:  
Hosted by Cities of  
Goodlettsville/Portland

**Who is invited?** All public and private school teachers and non-formal educators, park rangers, home school educators, nature center and museum staff, teachers-in-training.

- Fun, engaging, hands-on activities
- Learn about Tennessee's water resources while receiving six hours of in-service credit
- Incorporate environmental education into the classroom
- Help students become better stewards of their environment
- Learn the importance of stormwater quality and its impact
- Best Management Practices (BMPs) teach students real-world applications
- Conduct water sampling tests and discover what the results teach us

◆ **Date:** June 24, 2016

◆ **Time:** 9:00 am – 3:30 pm

◆ **Registration Fee:** \$15

◆ **Where:** Moss-Wright Park, Mansker's Visitor Center, 745 Caldwell Drive, Goodlettsville

◆ **RSVP:** Contact Sherry Montgomery [smontgomery@cityofgoodlettsville.org](mailto:smontgomery@cityofgoodlettsville.org) (615) 859-2740

◆ **Lunch:** free and is provided (advise of any allergies)

◆ **Dress:** Comfortable casual. Bring waterproof boots and/or shoes

◆ **Deadline to register:** June 22, 2016

### **NEW Project WET Curriculum and Activity Guide**

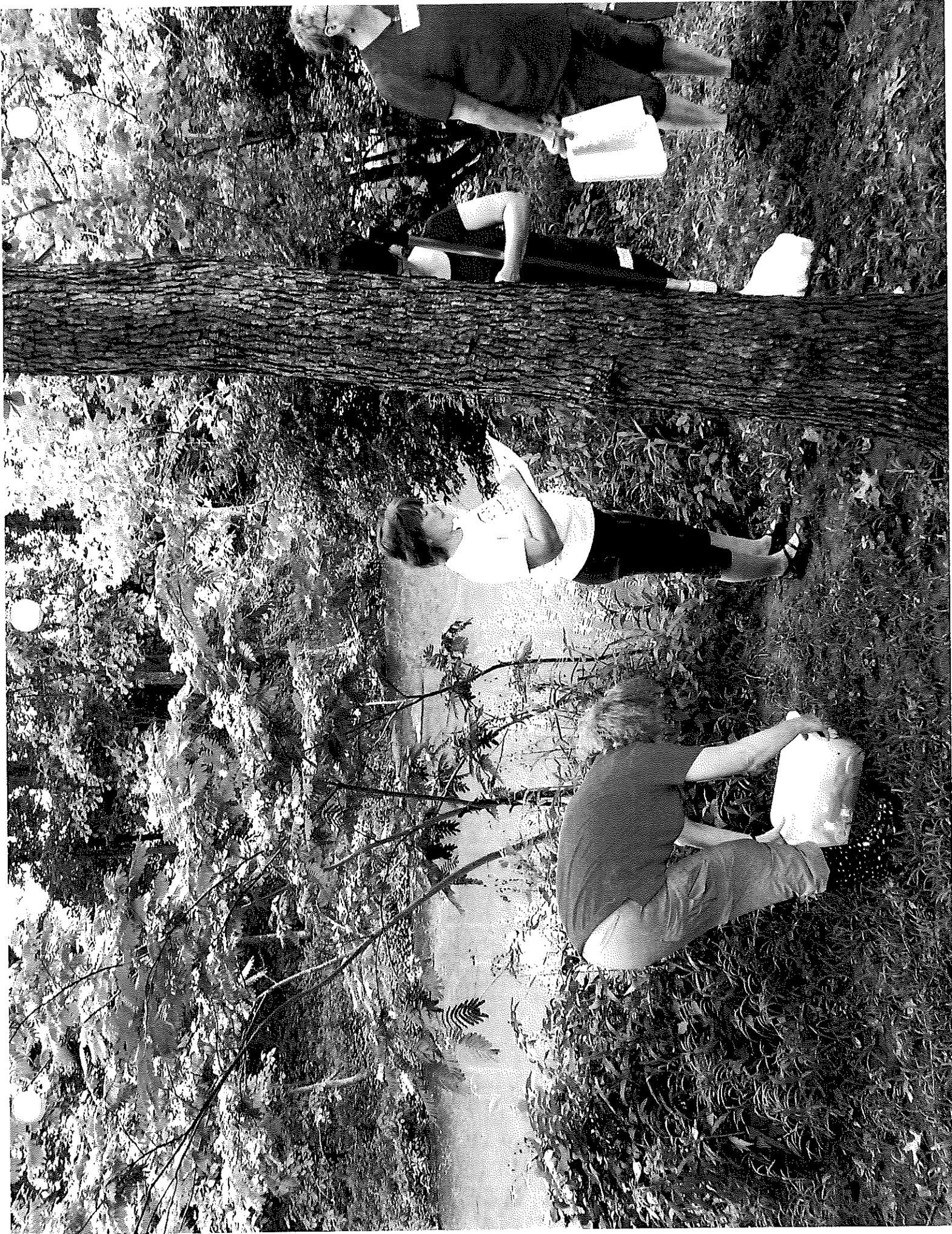
- Each participant receives a free copy of the NEW Project WET Curriculum and Activity Guide containing over 500 pages of various water-related activities for K-12<sup>th</sup> graders meeting new State of Tennessee standards and with other classroom aids
- Lessons cover a variety of formats: whole body, group, discovery science, and laboratory investigation, local and global issues. Lessons correlate to Science, Language Arts and Social Studies with the TN standards

• [www.ProjectWET.org](http://www.ProjectWET.org)

• [www.discoverwater.org](http://www.discoverwater.org)







**PUBLIC EDUCATION/OUTREACH**

**Urban Runoff 5K & Water Quality Fest**

2016/17

Warren Garrett

August 20, 2016



Urban Runoff 5K & Water Quality Festival  
Shelby Park & Nature Center, Nashville, TN  
*Building healthier communities through clean water education*

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*We're gearing up for this year's 4th annual Urban Runoff 5K & Water Quality Festival scheduled for Saturday, August 20<sup>th</sup>! If you are interested in sponsorship or hosting a booth or registering a team, please contact Jennifer Watson: [jennifer@stormwater.org](mailto:jennifer@stormwater.org) or Josh Hayes: [Joshua.Hayes@nashville.gov](mailto:Joshua.Hayes@nashville.gov)*

**Background:**

In 2013, Nashville's Metro Water Services, The Department of Environment & Conservation, and the Department of Agriculture teamed up together to host the inaugural and second Urban Runoff 5Ks at Bicentennial Capitol Mall State Park, the third UR5K was held at Centennial Park and this year's will be held at Shelby Park. The purpose of these events is to raise awareness among the public on urban water quality issues, and to help promote water quality and conservation services offered by public, private and NGO entities.

This past year's event attracted 230 registered runners and walkers, numerous volunteers, and 16 informational booths by the following entities:

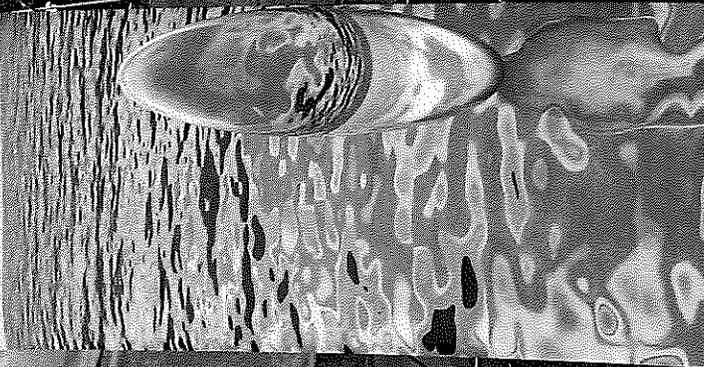
- TDEC State Parks-General Parks Info
- City of Goodlettsville Stormwater Program
- City of Mt. Juliet Stormwater Program
- Metro Nashville Water Services
- Tennessee Environmental Council
- Mill Creek Watershed Association
- The Nashville Zoo
- Metro Parks & Metro Water Services
- TN Dept. of Agriculture, Division of Forestry
- Tennessee Department of Environment and Conservation (TDEC)
- TDEC Field Office-Aquatic Macroinvertebrates
- Tennessee Stormwater Association
- Engineers without Borders
- Sustain VU & Vanderbilt University WEF Student Chapter
- TDOT

**There were also 17 sponsors, including:**

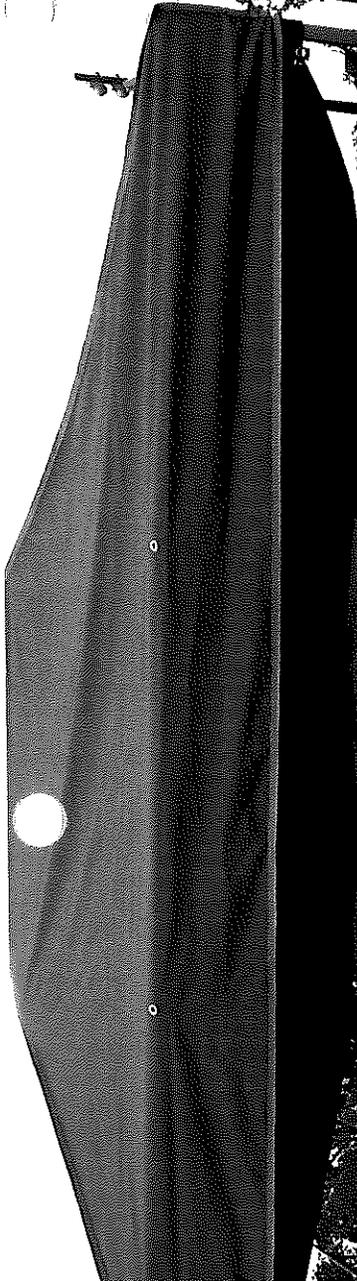
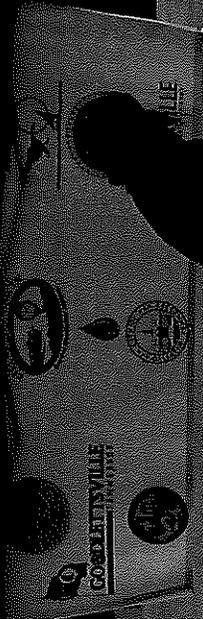
- Civic Engineering – 2015 Performance Sponsor!
- Amec-Foster Wheeler
- SustainVU
- Gobbell Hays Partners
- Wilmot
- Rock City Construction
- EnSafe
- CDM Smith
- Richland Watershed Alliance
- Metro Water Services
- Metro Public Works & Beautification
- Tennessee Stormwater Association
- TDEC State Parks
- TDA-Division of Forestry
- Tennessee Smart Yards
- Whites Creek Watershed Association
- Tennessee Environmental Council
- Cumberland River Compact

The event raised **\$5,798.69** for the Tennessee Stormwater Association. The proceeds will go towards furthering Water Quality Education throughout our state by supporting our 96 MS4s across the state in their public education campaigns.

Goodlettsville  
Storm Water  
[www.cityofgoodlettsville.org](http://www.cityofgoodlettsville.org)

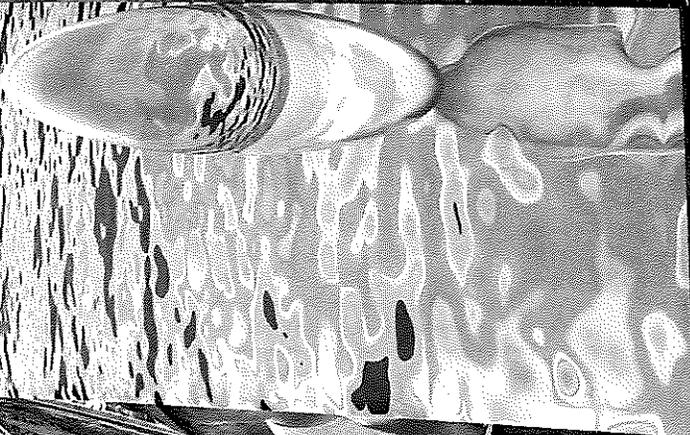


**GOODLETTSVILLE**  
TENNESSEE  
**Public Works**



Goodlettsville  
Storm Water

[www.cityofgoodlettsville.org](http://www.cityofgoodlettsville.org)



 **GOODLETTSVILLE**  
**Public**

**SEE  
US  
AT  
THE  
FEST**



# Tennessee Department of Environment & Conservation



Department of  
Environment &  
Conservation



Division of Solid  
Waste Management  
Materials Management  
Used Oil Program

TN ENVIRONMENTAL COMMISSION  
DIVISION OF SOLID WASTE MANAGEMENT  
MATERIALS MANAGEMENT  
PROGRAMS

The efficient reuse of  
six containers a million  
3 years of tap water  
For 15¢ a gallon

**ILLICIT DISCHARGE DETECTION AND  
ELIMINATION**

**Water Quality Testing Reports from WKU**

2016/17

Warren Garrett







270-745-8976

Mitchell Taylor @ wku.edu

# CHAIN OF CUSTODY RECORD

Western Kentucky University - Environmental Health Science Lab  
 Department of Public Health, 1906 College Heights Blvd., Bowling Green, KY 42101  
 Tel 270-745-2015 ♦ email: public.health@wku.edu

WATER

CLIENT NAME: City of Goodsville

ADDRESS: 25 Cartwright St.  
 Goodsville, TN 37072

PROJECT: PWS ID: Goodsville MS  
 PWS Name: PHONE: 615-857-2740  
 FAX: EMAIL:

PROJECT MANAGER: Dr. Mitchell Taylor

SAMPLER: ANALYSES REQUESTED

LAB ID#	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE POINT I.D. / NAME	# OF CONT.	Temp	Pressure	pH	DO	Turbidity	Chlorine	Other
G001	09/10/16		Grub	Trip blank	1	X	X	X	X	X	X	X
G002	09/10/16		Grub	TDEC Mon Nc	1	X	X	X	X	X	X	X
G003	09/10/16		Grub	TDEC Mon 18S	1	X	X	X	X	X	X	X
G004	09/10/16		Grub	TDEC SLADS	1	X	X	X	X	X	X	X
G005	09/10/16		Grub	TDEC SLADUS	1	X	X	X	X	X	X	X
G006	09/10/16		Grub	TDEC SLADUS	1	X	X	X	X	X	X	X
G007	09/10/16		Grub	TDEC DRYDS	1	X	X	X	X	X	X	X
G008	09/10/16		Grub	TDEC DRYDS	1	X	X	X	X	X	X	X

COMMENTS: Pressed < 4°C

Charges will apply for weekends/holidays  
 Method of Shipment:  
 Same Day Rush 150%  
 24 Hour Rush 100%  
 48-72 Hour Rush 75%  
 4 - 5 Day Rush 30%  
 Rush Extractions 50%  
 10 - 15 Business Days  
 QA/QC Data Package

RELINQUISHED BY	DATE / TIME	RECEIVED BY	DATE / TIME	SAMPLE CONDITION:	SAMPLE TYPE CODE:
<i>[Signature]</i>	09/10/2016 12:09	<i>[Signature]</i>	09/10/2016 1:55	Actual Temperature: Received On Ice Preserved Evidence Seals Present Container Attached Preserved at Lab	DW - Drinking Water SW - Surface Water RW - Raw Water GW - Groundwater RW - Recreational Water TW - Treated Water

RELINQUISHED BY: *[Signature]* DATE / TIME: 09/10/2016 12:09

RECEIVED BY: *[Signature]* DATE / TIME: 09/10/2016 1:55

RELINQUISHED BY: *[Signature]* DATE / TIME: 09/10/2016 1:55

RECEIVED BY: *[Signature]* DATE / TIME: 09/10/2016 1:55

270-745-8976 *article Taylor@uku.edu*

Western Kentucky University - Environmental Health Science Lab  
 Department of Public Health, 1906 College Heights Blvd., Bowling Green, KY 42101  
 Tel 270-745-2015 ♦ email: public.health@wku.edu

# CHAIN OF CUSTODY RECORD

WATER

CLIENT NAME: *City of Goodlettsville*  
 PROJECT: *Goodlettsville m54*  
 PWS ID:  
 PWS Name:

ADDRESS: *215 containing W St. Goodlettsville, TN 37072*  
 PHONE: *615-859-2740*  
 FAX:  
 EMAIL:

PROJECT MANAGER: SAMPLER

LAB ID# (For Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPL TYPE	SAMPLER	SAMPLE POINT ID / NAME	# OF CONT.	ANALYSES REQUESTED				SPECIAL HANDLING						
G001	9/13/2016	9:21	G06		TOP Blank	1											
G002	9/13/2016	9:36	G06		TDEC MATH US	1											
G003	9/13/2016	9:45	G06		TDEC SLA VS	1											
G004	9/13/2016	10:01	G06		TDEC LAM	1											
G005	9/13/2016	10:02	G06		TDEC LAM BOP	1											
G006	9/13/2016	10:06	G06		TDEC SLA BS	1											
G007	9/13/2016	10:18	G06		TDEC MATH NC	1											
G008	9/13/2016	10:40	G06		TDEC Dry DS	1											

RELINQUISHED BY: *[Signature]* DATE / TIME: *9/19/16 10:58*  
 RECEIVED BY: *[Signature]*

RELINQUISHED BY: *[Signature]* DATE / TIME: *9/13/16 11:25 Am*  
 RECEIVED BY: *[Signature]*

RELINQUISHED BY: DATE / TIME: RECEIVED BY:

Charges will apply for weekends/holidays  
 Method of Shipment:  
 COMMENTS: *Preserved <= 4°C*

SAMPLE CONDITION:  
 Actual Temperature:  
 Received On Ice  
 Preserved  
 Evidence Seals Present  
 Container Attacked  
 Preserved at Lab

SAMPLE TYPE CODE:  
 DW - Drinking Water  
 SW - Surface Water  
 RW - Raw Water  
 GW - Groundwater  
 RW - Recreational Water  
 TW - Treated Water

270-745 8976

ritchietaylor@wku.edu

**CHAIN OF CUSTODY RECORD**

Western Kentucky University - Environmental Health Science Lab  
 Department of Public Health, 1906 College Heights Blvd., Bowling Green, KY 42101  
 Tel 270-745-2045 ♦ email: public.health@wku.edu

WATER

Page 1 Of 1

CLIENT NAME: City of Goodlettsville  
 PROJECT: Goodlettsville MS4  
 PWS ID:  
 PWS Name:

ADDRESS: 215 Court W. Night St.  
 PHONE: 615-859-2740  
 Goodlettsville, TN 37072  
 FAX:  
 EMAIL:

PROJECT MANAGER: Dr. Ritchie Taylor  
 SAMPLER:

LAB ID# (For Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPL TYPE	SAMPLE POINT ID. / NAME	# OF CONT.	ANALYSES REQUESTED				COMMENTS		
G001	09/07/16	10:35	Grab	Twp Blank	1							Preserved @ 4°C
G002	09/07/16	10:54	Grab	Benham 115	1							
G003	09/07/16	11:09	Grab	Benham	1							
G004	09/07/16	11:23	Grab	SCA DS	1							
G005	09/07/16	11:25	Grab	DECSA DS	1							
G006	09/07/16	11:34	Grab	DECSA LM	1							
G007	09/07/16	11:57	Grab	DECSA VP	1							
G008	09/07/16	12:15	Grab	DECSA DYS	1							

RELINQUISHED BY: [Signature]  
 DATE / TIME: 09/07/16 12:31  
 RECEIVED BY: [Signature]  
 DATE / TIME: 9/7/16 12:50

RELINQUISHED BY: [Signature]  
 DATE / TIME: 9/7/16 12:50  
 RECEIVED BY: [Signature]

RELINQUISHED BY: [Signature]  
 DATE / TIME: 9/7/16 12:50  
 RECEIVED BY: [Signature]

SPECIAL HANDLING  
 Same Day Rush 150%  
 24 Hour Rush 100%  
 48-72 Hour Rush 75%  
 4 - 5 Day Rush 30%  
 Rush Extractions 50%  
 10 - 15 Business Days  
 QA/QC Data Package

Charges will apply for weekends/holidays  
 Method of Shipment:  
 COMMENTS: Preserved @ 4°C

SAMPLE CONDITION:  
 Actual Temperature:  
 Received On Ice  
 Preserved  
 Evidence Seals Present  
 Container Attached  
 Preserved at Lab

SAMPLE TYPE CODE:  
 DW - Drinking Water  
 SW - Surface Water  
 RW - Raw Water  
 Y / N  
 Y / N  
 Y / N  
 Y / N  
 TW - Treated Water

274 270 - 745 - 8976

# CHAIN OF CUSTODY RECORD

Western Kentucky University - Environmental Health Science Lab  
 Department of Public Health, 1906 College Heights Blvd., Bowling Green, KY 42101  
 Tel: 270-745-2015 ♦ email: public.health@wku.edu

WATER

CLIENT NAME: City of Goodlettsville  
 PROJECT: Goodlettsville M14  
 PWS ID:   
 PWS Name:   
 PHONE:   
 FAX: 615-859-2740  
 EMAIL:   
 ADDRESS: 215 Cordwain St.  
 Goodlettsville, TN 37072

PROJECT MANAGER: Dr. Ritchie Toylor  
 SAMPLER:   
 LAB ID# (for lab use only) DATE SAMPLED TIME SAMPLED SWFL TYPE SAMPLE POINT ID / NAME # OF CONT.

LAB ID# (for lab use only)	DATE SAMPLED	TIME SAMPLED	SWFL TYPE	SAMPLE POINT ID / NAME	# OF CONT.	ANALYSES REQUESTED				SAMPLE CONDITION:	SAMPLE TYPE CODE:	
G001	9/15/16	1:58	Grab	Trip Blank	1						Actual Temperature:	DW - Drinking Water
G002	9/15/16	2:09pm	Grab	TDFC Lump	1	X	X				Received On Ice	RW - Raw Water
G003	9/15/16	2:11pm	Grab	TDFC Lump	1	X	X				Preserved Evidence Seals Present	Y/N
											Controller Attached	Y/N
											Preserved at Lab	Y/N

RELINQUISHED BY: [Signature] DATE / TIME: 9/15/16 02:41  
 RECEIVED BY: [Signature]  
 RELINQUISHED BY: [Signature] DATE / TIME: 9/15/16 3:00  
 RECEIVED BY: [Signature]

SPECIAL HANDLING  
 Same Day Rush 150%  
 24 Hour Rush 100%  
 48-72 Hour Rush 75%  
 4 - 5 Day Rush 30%  
 Rush Extractions 50%  
 10 - 15 Business Days  
 QADOC Data Package  
 Charges will apply for weekends/holidays  
 Method of Shipment  
 COMMENTS: preserved @ 4°C



270-745-8976

n.taylor@wku.edu

# CHAIN OF CUSTODY RECORD

Western Kentucky University - Environmental Health Science Lab  
 Department of Public Health, 1906 College Heights Blvd., Bowling Green, KY 42101  
 Tel 270-745-2015 ♦ email: public.health@wku.edu

WATER

Page 1 Of 1

CLIENT NAME: City of Goodlettsville  
 PROJECT: Goodlettsville MS4

ADDRESS: 215 Eastwindsor St.  
 PHONE: 615-859-2746  
 FAX:  
 EMAIL:

Goodlettsville, TN 37072

PROJECT MANAGER: Dr. R. L. Taylor

LAB ID# (For Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLER	SAMPL TYPE	SAMPLE POINT ID / NAME	# OF CONT.
G001	9/20/16	12:40	TRIP Blank	1		1
G002	9/20/16	12:46	TDEC Man DS	1		1
G003	9/20/16	12:47	TDEC Man DS	1		1

ANALYSES REQUESTED	MPN	COMMENTS
1	MPN	prepped < 4°C
1		
1		

RELINQUISHED BY	DATE / TIME	RECEIVED BY	DATE / TIME	SAMPLE CONDITION:	SAMPLE TYPE CODE:
[Signature]	09/20/16 12:57	[Signature]	12:58pm	Actual Temperature:	DW - Drinking Water
[Signature]	9/20/16 1:40	[Signature]		Received On Ice	SW - Surface Water
[Signature]		[Signature]		Preserved	RW - Raw Water
				Evidence Seals Present	Y / N
				Combiliner Attached	Y / N
				Preserved at Lab	Y / N

RELINQUISHED BY: [Signature]  
 DATE / TIME: 09/20/16 12:57  
 RECEIVED BY: [Signature]  
 DATE / TIME: 12:58pm

RELINQUISHED BY: [Signature]  
 DATE / TIME: 9/20/16 1:40  
 RECEIVED BY: [Signature]

RELINQUISHED BY: [Signature]  
 DATE / TIME: [Blank]

SAMPLE CONDITION:  
 Actual Temperature:  
 Received On Ice  
 Preserved  
 Evidence Seals Present  
 Combiliner Attached  
 Preserved at Lab

SAMPLE TYPE CODE:  
 DW - Drinking Water  
 SW - Surface Water  
 RW - Raw Water  
 GW - Groundwater  
 RW - Recreational Water  
 TW - Treated Water

12152

**CHAIN OF CUSTODY RECORD**

WATER

270-445 8976  
 Western Kentucky University - Environmental Health Science Lab  
 Department of Public Health, 1906 College Heights Blvd., Bowling Green, KY 42101  
 Tel: 270-745-2015 \* email: public.health@wku.edu

CLIENT NAME: City of Goodlettsville  
 PROJECT: Goodlettsville MS4

ADDRESS: 215 Catholic Road St. Goodlettsville, TN 37072  
 PHONE: 615-859-2740  
 FAX:  
 EMAIL:

PROJECT MANAGER: D. Ritchie Taylor

LAB ID# <small>(For Lab Use Only)</small>	DATE / TIME SAMPLED	SAMPLER	SAMPLE POINT ID / NAME	# OF CONT.	ANALYSES REQUESTED		SPECIAL HANDLING	COMMENTS
					L	S		
G001	8/11/2016 10:59	Gsb	Trip Blank	1	X	X		Reserved @ 492
G002	8/11/2016 11:16	Gsb	TDEC Man US	1	X	X		
G003	8/11/2016 11:32	Gsb	TDEC SL, US	1	X	X		
G004	8/11/2016 11:31	Gsb	TDEC SL, LS Dry	1	X	X		
G005	8/11/2016 11:45	Gsb	TDEC Man, VC	1	X	X		
G006	8/11/2016 12:02	Gsb	TDEC Dry, DJ	1	X	X		
G007	8/11/2016 12:20	Gsb	TDEC SL, PS	1	X	X		

RELINQUISHED BY: [Signature] DATE / TIME: 8/11/2016 12:27 RECEIVED BY: [Signature]  
 RELINQUISHED BY: [Signature] DATE / TIME: 8/11/16 12:43 RECEIVED BY: [Signature]  
 RELINQUISHED BY: [Signature] DATE / TIME:                      RECEIVED BY:                     

SAMPLE CONDITION:  
 Actual Temperature: \_\_\_\_\_  
 Received On Ice: \_\_\_\_\_  
 Evidence Seals Present: \_\_\_\_\_  
 Container Attached: \_\_\_\_\_  
 Preserved at Lab: \_\_\_\_\_

SAMPLE TYPE CODE:  
 DW - Drinking Water  
 SW - Surface Water  
 RW - Raw Water  
 GW - Groundwater  
 RW - Recreational Water  
 TW - Treated Water

Page 1 of 1  
**SPECIAL HANDLING**  
 Same Day Rush 150%  
 24 Hour Rush 100%  
 48-72 Hour Rush 75%  
 4-5 Day Rush 30%  
 Rush Extractions 50%  
 10-15 Business Days  
 OACOC Data Package

Changes will apply for weekends/holidays  
 Method of Shipment:

270-745-8972 *fidrick.hylko@uk.edu*

Western Kentucky University - Environmental Health Science Lab  
 Department of Public Health, 1906 College Heights Blvd., Bowling Green, KY 42101  
 Tel 270-745-2015 • email: public.health@wku.edu

# CHAIN OF CUSTODY RECORD

WATER

CLIENT NAME: *City of Goodlettsville*

ADDRESS: 215 Cumberland St  
 Goodlettsville, TN 37072

PROJECT MANAGER: *D. Ritzler Taylor*

PROJECT: *Goodlettsville 154*  
 PWS ID:  
 PWS Name:  
 PHONE: *615-859-2046*  
 FAX:  
 EMAIL:

Page 1 Of 1  
 SPECIAL HANDLING

- Same Day Rush 150%
- 24 Hour Rush 100%
- 48-72 Hour Rush 75%
- 4 - 5 Day Rush 30%
- Rush Extractions 50%
- 10 - 15 Business Days
- QA/QC Data Package

Changes will apply for weekends/holidays  
 Method of Shipment:

LAB ID# <small>(For Lab Use Only)</small>	DATE SAMPLED	TIME SAMPLED	SAMPLER	SAMPL TYPE	SAMPLE POINT ID / NAME	# OF CONT.	ANALYSES REQUESTED				COMMENTS	
G001	8/24/2016	9:38	Grab	Grab	Trip Blank	1	X	X	X	X	Blank	
G002	8/24/2016	9:39	Grab	Grab	TDEC S10 US	1	X	X	X	X	Preserved	440C
G003	8/24/2016	9:45	Grab	Grab	TDEC S14 US	1	X	X	X	X		
G004	8/24/2016	9:50	Grab	Grab	TDEC S14 DS Dup	1	X	X	X	X		
G005	8/24/2016	10:05	Grab	Grab	TDEC Dry Br	1	X	X	X	X		
G006	8/24/2016	10:15	Grab	Grab	TDEC New NC	1	X	X	X	X		

RELINQUISHED BY: *Matthew Spitzer* DATE / TIME: 8/24/2016 10:32 RECEIVED BY: *Walter Prust*

RELINQUISHED BY: *Walter Prust* DATE / TIME: 8/24/16 1850 RECEIVED BY: *[Signature]*

RELINQUISHED BY: DATE / TIME: RECEIVED BY:

SAMPLE CONDITION: Actual Temperature: SAMPLE TYPE CODE: DW - Drinking Water, SW - Surface Water, RW - Raw Water, GW - Groundwater, RW - Recreational Water, TW - Treated Water

**PUBLIC PARTICIPATION**

**ADOPT-A-STREET**

2016/17

Warren Garrett

ADOPT  
City Of  A  
Goodlettsville STREET

Marriott



**Warren Garrett**

**From:** Sipes, Trenton C <Trenton.Sipes@edwardjones.com>  
**Sent:** Wednesday, March 08, 2017 8:58 AM  
**To:** Warren Garrett  
**Subject:** Roadside clean up report

Warren,  
I am sorry for this lateness of this report. I am the worst at getting these too you.

**City of Goodlettsville Adopt-A-Street Program  
CLEAN-UP REPORT**

Name of Group:        Edward Jones

Trenton Sipes  
Financial Advisor  
Edward Jones  
1000 Northchase Drive  
Suite 101-A  
Goodlettsville, TN 37072  
(615) 851-9800  
[www.edwardjones.com](http://www.edwardjones.com)

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Street(s) Adopted:        Northcreek BLVD       

Date of Litter Pick-Up  
Event:        2/18/17       

Coordinator's Name:        Trent Sipes       

Coordinator's Email:        Trenton.sipes@edwardjones.com       

Total number of volunteers participating in clean-up:        7       

Total number of hours group spent on this project (e.g., 9:00 a.m. – noon = 3 hours):        1.5       

Number of bags filled:        4       

Types of items found:        Just normal trash.

---

---

List location of bags that the City needs to pick-up: We disposed of them. \_\_\_\_\_

---

---

Return completed form and unused materials within three business days of the pick-up event to:

City of Goodlettsville's Adopt-A-Street Program  
215 Cartwright St.  
Goodlettsville, TN 37072  
(615) 859-2740 phone  
(615) 851-4052 fax

Thank you,

**Trenton C. Sipes**  
Financial Advisor  
1000 Northchase Drive Suite 101-A  
Goodlettsville, TN 37072  
(615)851-9800  
[trenton.sipes@edwardjones.com](mailto:trenton.sipes@edwardjones.com)

City of Goodlettsville Adopt-A-Street Program  
CLEAN-UP REPORT

Name of Group: First Bank

Street(s) Adopted: Conference Dr.

Date of Litter Pick-Up Event: 3-2-17

Coordinator's Name: Jackie Pond

Coordinator's Email: jpond@firstbankonline.com

Total number of volunteers participating in clean-up: 4

Total number of hours group spent on this project (e.g., 9:00 a.m. - noon = 3 hours): 1 1/2

Number of bags filled: 4-5 - combined together

Types of items found: bottles, cups, trash,

\* We did see a bag behind fire hydrant that was tied w/ liquids -

List location of bags that the City needs to pick-up: By fire hydrant from

Conf. to Long Hollow Rt Side

(Did not  
pick  
up)

Return completed form and unused materials within three business days of the pick-up event to:

City of Goodlettsville's Adopt-A-Street Program  
215 Cartwright St.  
Goodlettsville, TN 37072  
(615) 859-2740 phone  
(615) 851-4052 fax

\* There also was a large metal strapping on  
the same side of road that was long + too sharp  
to put in bags -

City of Goodlettsville Adopt-A-Street Program  
CLEAN-UP REPORT

Name of Group: FirstBank

Street(s) Adopted: Conference Drive

Date of Litter Pick-Up Event: 4-14-16

Coordinator's Name: Jackie Pond

Coordinator's Email: jpond@gmail.com

Total number of volunteers participating in clean-up: 4

Total number of hours group spent on this project (e.g., 9:00 a.m. - noon = 3 hours): 1 1/2 hrs

Number of bags filled: 6

Types of items found: bottles, paper, hub caps (2) pliers, some sort  
of belt from car

List location of bags that the City needs to pick-up: 4 on one side of Conference Dr  
by light pole / 2 on the other side by pole

Return completed form and unused materials within three business days of the pick-up event to:

City of Goodlettsville's Adopt-A-Street Program  
215 Cartwright St.  
Goodlettsville, TN 37072  
(615) 859-2740 phone  
(615) 851-4052 fax

City of Goodlettsville Adopt-A-Street Program  
CLEAN-UP REPORT

Name of Group: First Bank

Street(s) Adopted: Conference Drive

Date of Litter Pick-Up Event: 5-23-17

Coordinator's Name: Jackie Pond

Coordinator's Email: j.pond@firstbankonline.com

Total number of volunteers participating in clean-up: 4

Total number of hours group spent on this project (e.g., 9:00 a.m. - noon = 3 hours): 1 hour

Number of bags filled: 4-5 (condensed)

Types of items found: normal trash

List location of bags that the City needs to pick-up: Dollar General traffic light  
(DE side)

Return completed form and unused materials within three business days of the pick-up event to:

City of Goodlettsville's Adopt-A-Street Program  
215 Cartwright St.  
Goodlettsville, TN 37072  
(615) 859-2740 phone  
(615) 851-4052 fax

**City of Goodlettsville Adopt-A-Street Program  
CLEAN-UP REPORT**

**Name of Group:** Courtyard by Marriott Nashville Goodlettsville \_\_\_\_\_

**Street(s) Adopted:** Conference Drive \_\_\_\_\_

**Date of Litter Pick-Up Event:** 9/7/2016 \_\_\_\_\_

**Coordinator's Name:** Daniel Brown \_\_\_\_\_

**Coordinator's Email:** daniel.r.brown@marriott.com \_\_\_\_\_

**Total number of volunteers participating in clean-up:** 8 \_\_\_\_\_

**Total number of hours group spent on this project (e.g., 9:00 a.m. – noon = 3 hours):** 2 hours \_\_\_\_\_

**Number of bags filled:** 8 total bags, most half full \_\_\_\_\_

**Types of items found:** Cigarette butts, various car parts, plastic bags, cups and bottles \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**List location of bags that the City needs to pick-up:** The bags are under each Adopt-A-Street sign on conference drive. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Return completed form and unused materials within three business days of the pick-up event to:**

City of Goodlettsville's Adopt-A-Street Program  
215 Cartwright St.  
Goodlettsville, TN 37072  
(615) 859-2740 phone  
(615) 851-4052 fax

**PUBLIC PARTICIPATION**

**Community Advisory Panel/Goodlettsville  
Hearing Authority**

2016/17

Warren Garrett

# **NPDES GENERAL PERMIT FOR DISCHARGES FROM MS4**

Municipal Separate Storm Sewer Systems (MS4)

Warren Garrett/Community Advisory Panel Discussion 3/16/2017

---

## **1. Coverage under this permit:**

- a. This permit covers the entire State of Tennessee**

## **1.3 Eligibility:**

### **1.4 Limitations on coverage:**

### **1.5 Obtaining authorization:**

## **2. Notice of Intent Requirements:**

### **2.1 Deadlines for notification:**

### **2.2 Where and how to submit N.O.I.**

## **3. Special Conditions: Not Addressed**

## **4. Stormwater Management Program:**

### **4.4 Reviewing and Updating Stormwater Management Program:**

## Community Advisory Panel Minutes

**Date:** Thursday, April 20, 2017

**Time:** 9 a.m.

**Place:** 215 Cartwright Street, Goodlettsville, TN. 37072

**Present:** Warren Garrett, Rose Baker, Andy Garrett, Mike Bertotti, Beverly Goodwin

**We thank you all very much for your contribution to our meeting event as well as our communities!**

### **Discussion:**

1. Warren Garrett- provided the group with some brief insights into the permit requirements for the SWMP. Please take time to look at the proposed changes to the attached SWMP. The summary that is required upon review and update needs to be kept on file per TDEC in event of audit; it may be requested for confirmation of compliance. An additional bullet summary of changes needs to be approved in writing from TDEC before any permanent changes can be made.
2. Handouts included P.I.E. (Public Information and Education), Video Contract update from WKU, Stormwater User Fee Credit Manual, NPDES General Permit (Rationale Sheet)
3. The City of Goodlettsville is sponsoring Walk Across Sumner for year 2017. This will allow the City Stormwater Department the ability to provide 4500 pieces of water quality literature to all participants in this year's event! We will also be providing our banner at the kickoff, have logo displayed on Walk across Sumner homepage for entire year, logo printed on all materials, large logo at top of all t-shirts and the option to provide even more water quality promotional materials at business site!
4. The probability is very good that we will double as the Goodlettsville Hearing Authority for future fee appeals regarding stormwater user fees. This will be in accordance with our ordinance compliance. I will keep all of you up to date. I am still waiting to find out the progress of the application fee, and may address this with the Hearing Authority for a proposal.

---

We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

This information will be available on our Mid Tennessee Stormwater Facebook page.

- o **Next Meeting:** Friday, May 19, 2017

(Details on next Agenda)

**Adjourned:**

10:00 am

***Respectfully submitted,***

**W. Garrett**

**Stormwater Coordinator/Goodlettsville TN.**

*Forming Partnerships*

*Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.*

**Community Advisory Panel/  
Goodlettsville Hearing Authority  
Minutes**

**Date:** Friday, May 19, 2017

**Time:** 9 a.m.

**Place:** 215 Cartwright Street, Goodlettsville, TN. 37072

**Present:** Warren Garrett, Hellen Morrison, Andy Garrett, Greg Edrington, Beverly Goodwin, Jack Sundred

**We thank you all very much for your contribution to our meeting event as well as our communities!**

**Discussion:**

1. Extensive discussion regarding the EPA's six BMP's that guide Goodlettsville's MS4 program.

- a. Illicit Discharge Detection and Elimination (IDDE)
- b. Construction Site Runoff Control
- c. Pollution Prevention/Good Housekeeping
- d. Post-Construction Runoff Control
- e. Public Education and Outreach
- f. Public Participation/Involvement

2. Discussion regarding the standard NOC received for local projects and verbiage used under **"Receiving Stream not Supporting Designated Uses"**

**"...Therefore, the additional pollution prevention requirements described in subpart 5.4 of the General Permit are applicable to your construction site; requirements of section 5.4.2. apply only if the stream is located adjacent to the disturbed area."**

Upon research of the General Permit 5.4, this is in reference to the MS4 annual report requirements, not an additional pollution prevention requirement. Also section 5.4.2. does not exist.

**Goodlettsville Hearing Authority**

Discussion regarding developers or contractors grading or clearing land prior to issuance of a LDP.

1. Project on 7.4 acres began filling and grading of proposed project prior to LDP being obtained.
  - a. Discussed Stop Work Order given.
  - b. Reviewed Notice of Violation form.
  - c. Verified compliance with Stormwater Ordinance.
  - d. Discussed possible penalties.

---

We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

This information will be available on our Mid Tennessee Stormwater Facebook page.

- **Next Meeting:** Thursday, June 15, 2017

(Details on next Agenda)

**Adjourned:**

11:00 am

***Respectfully submitted,***

***W. Garrett***

***Stormwater Coordinator/Goodlettsville TN.***

***Forming Partnerships***

*Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.*

**Community Advisory Panel/  
Goodlettsville Hearing Authority  
Minutes**

**Date:** Thursday June 15, 2017

**Time:** 9 a.m.

**Place:** 215 Cartwright Street, Goodlettsville, TN. 37072

**Present:** Warren Garrett, Guinn Nolen, Beverly Goodwin, Rose Baker, Paul Davis, Andy Garrett, Mike Bertotti, Greg Edrington.

**We thank you all very much for your contribution to our meeting event as well as our communities!**

**Discussion:**

1. Drainage issue regarding cleaning of wet weather conveyance behind and under home on Roscoe Street. The Ordinance provides for emergency access and repairs only, and then only in a designated easement. This property does not have any recorded drainage easement.
2. Update on Dry Creek development regarding previous NOV issued. They have provided compliance with our request.
3. Drainage issue regarding pooling water at roadway on Madison Creek Rd. with no designated drainage ditches or driveway culvert. This is a paving depth issue, not a stormwater matter.

**4. Congratulations to Greg Edrington for passing the Level II EPSC exam!**

**Ordinance review:**

1. Add definition of "Impervious Surface Area" to ordinance.
2. Change corresponding definition numbers #21 through #56 to accommodate the above change.
3. The 80% TSS removal needs clarification on particle size, we are requesting the addition of (100 micron particle and above)
4. Verbiage in 18-506 Buffer Zones, we want to eliminate "the cost" statement since the new permit allows for a cost exemption.
5. 18-508(5) needs "16-510" to now reflect 18-510.

**Comment [WG1]:** Becomes definition number #20

**Comment [WG2]:** New addition, still under review for particle size

**Comment [WG3]:** Update to current ordinance reference number

6. 18-510(1) needs the addition "Court summons and/or citations" 18-510(1)(f) needs the additional phrase added "The Ms4 may issue a court summons to violators to achieve compliance when other enforcement measures have failed" 18-510(2)(d) will remove the verbiage "Show cause hearing" and replace with "Court summons" also "The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ~~(10)~~ (30) days prior to the hearing date.

Comment [WG4]: New addition.

Comment [WG5]: Amend as requested

Comment [WG6]: Replace with "Hearing"

Comment [WG7]: Replace 10 days with 30 days

Comment [WG8]: add

We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

This information will be available on our Mid Tennessee Stormwater Facebook page.

- o **Next Meeting:** Thursday, July 20, 2017

(Details on next Agenda)

**Adjourned:**

11:00 am

*Respectfully submitted,*

**W. Garrett**

**Stormwater Coordinator/Goodlettsville TN.**

*Forming Partnerships*

*Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.*

**PUBLIC EDUCATION/OUTREACH**

**Tailgate Education Wrap**

2016/17

Warren Garrett

Hotline (615) 859-2740

*Watershed Protection*

F150

*Through Stormwater Management*

GOODLETTSVILLE

TENNESSEE  
2694-GE  
Tenn. Govt. Service

SPALD FIELD

SPALD FIELD

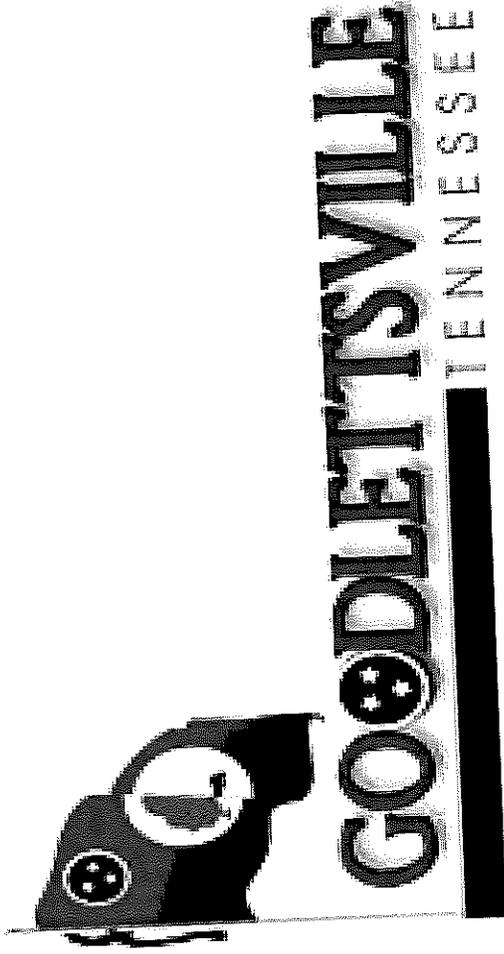
**PUBLIC EDUCATION/OUTREACH**

**PUBLIX Educational Handout for residents and  
water quality**

2016/17

Warren Garrett

# Certificate of Appreciation and Participation



This certificate is awarded to

**PUBLIX**

in recognition of valuable contributions to clean water in the city of Goodlettsville Tennessee by participating in distribution of (1,000) Public Education and Outreach materials in September of 2016 to valued customers and citizens of our city.

9/23/2016

Date

Warren Garrett, Stormwater Coordinator

SOS PRINTING, LLC  
 706 SPACE PARK NORTH  
 GOODLETTSVILLE, TN 37072

# Invoice

DATE	INVOICE #
9/1/2016	27129

**BILL TO:**

**SHIP TO:**

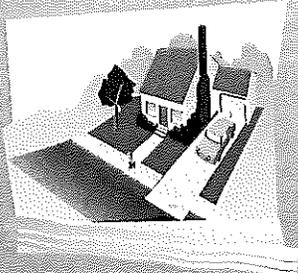
CITY OF GOODLETTSVILLE PUBLIC WORKS  
 105 SOUTH MAIN STREET  
 GOODLETTSVILLE, TN 37072

P.O. NUMBER	TERMS - NET 30
10-13319	

QUANTITY	DESCRIPTION	AMOUNT
1,000	"STORMWATER RUNOFF" BOOKMARK - 2.75 x 8.75, 4/4	132.50
<b>Total</b>		<b>\$132.50</b>

Please pay from this invoice. No statement will be sent . Please include invoice number or a copy of this invoice with remittance. 1.5% WILL BE ADDED TO ALL INVOICES FOR 30 DAYS PAST DUE! Customer is responsible for the charges incurred in the collection of this debt, including all legal fees. THANK YOU!

615-859-0029 615-543-3106 Fax



### 10 Things You Can Do to Prevent Stormwater Runoff Pollution

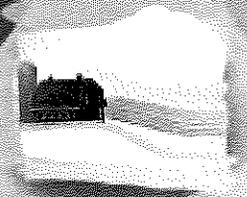
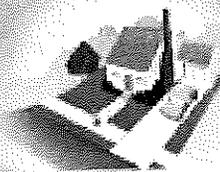
- Use fertilizers sparingly and sweep up driveways, sidewalks, and gutters
- Never dump anything down storm drains or in streams
- Vegetate bare spots in your yard
- Compost your yard waste
- Use least toxic pesticides, follow labels, and learn how to prevent pest problems
- Direct downspouts away from paved surfaces; consider a rain garden to capture runoff
- Take your car to the car wash instead of washing it in the driveway
- Check your car for leaks and recycle your motor oil
- Pick up after your pet
- Have your septic tank pumped and system inspected regularly



United States  
Environmental Protection  
Agency

For more information, visit  
[www.epa.gov/nps](http://www.epa.gov/nps) or  
[www.epa.gov/npdes/stormwater](http://www.epa.gov/npdes/stormwater)

## Clean Water



*Everybody's  
Business*

**PUBLIC EDUCATION/OUTREACH**

**Mid Tennessee Stormwater Group Monthly  
Meetings**

2016/17

Warren Garrett

# Mid-Tennessee Stormwater Group

## AGENDA

**Date: Wednesday July 13, 2016**

**Time: 11:00 a.m.**

**Location: William O. Beach Civic Hall-Room A 350 Pageant Ln Suite 201, Clarksville, TN 37040**

### **Call to Order**

### **Agenda:**

1. Guest speaker Michelle Newell, Clarksville Montgomery County Green Certification Manager, will discuss the Green Certification program.
2. Discussion of the newly issued MS4 Permit.

### **Additional Comments and Discussion**

Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.

Don't forget! Annual reports will be due soon!

Please connect with us on Facebook and share our page!

### **Upcoming Events:**

### **Adjournment Time:**

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Wednesday, August 3, 2016

**Time:** 11:30 a.m.

**Place:** Crescent City Po Boys 102 North Water Ave. Gallatin, TN.

**Present:** Paul Davis, Tracey Barrow, Gina Hutson, Carlton Cobb, Warren Garrett, Nick Tittle, Eric Gardner, Rick Mayo, Rodney Joiner, Steve Casey, Brandon Head, Brian Mulligan, Aaron Hickson, Bradley Simpson, Patrick Dobbs, Mike Bertotti

**Quest Speaker:** Group Discussion

### Discussion:

General discussion among group circulated questions and answers from various cities and Sumner County regarding Education and Outreach opportunities, door hanger examples as well as educational materials available for customers via the Walk across Sumner campaign.

- Annual reports and Notice of Intent due for new permit, what can we do to help each other in completion of reports. Some of our managers are new and need our assistance, let's talk about networking our information to help them transition. I will forward completed forms to whomever desires one for guidance
- Walk Across Sumner 2016 Sponsorship Program (This program does qualify as education and outreach for all ages through water quality information distribution in over 1000 packets in Sumner County, potentially reaching up to 30,000 residents.) Attached information and form, please set aside monies for next June so we can reach the goal of \$2500 from our MTSG
- Door Hangers for local hotels to promote water conservation. Looking into providing these as well as pet waste education/supplies for our local hotels. This will meet the requirements for including business in water quality support through education and outreach. (door hangers can also save the hotel up to \$15,000.00 annually in costs) This program could save Goodlettsville Hotels up to an annual savings of \$180,000
- Present new banner for our group. I will add logo's as participants enter our partnership. The banner will be used at all of Goodlettsville's Booth events along with the City Banner, we want to encourage all of us to use this as a visual educational banner to inform communities of our community wide network and dedication to water quality issues. Banner is available for loan also if not in use.
- Please see attached information from EPA as well as the Walk across Sumner program; door hanger samples are also attached.

### Additional Comments and Discussion

Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.

Don't forget! Annual reports will be due soon!

Please connect with us on Facebook and share our page!

- **Next Meeting:** September 7, 2016. 9 am (Hendersonville)  
213 Indian Lake Blvd, Hendersonville, TN 37075  
TIME OF MEETING HAS BEEN CHANGED TO 9 AM AT REQUEST OF GROUP TO HELP BETTER SCHEDULE DAILY ACTIVITIES. PLEASE MAKE NOTE FOR FUTURE MEETINGS.

**Upcoming Events:**

There were no additional comments and the meeting adjourned at 1:15 p.m.

***Respectfully submitted,***

***W. Garrett***

***Stormwater Coordinator/Goodlettsville TN.***

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Monday, September 12, 2016

**Time:** 9 a.m.

**Place:** Cracker Barrel 213 Indian Lake Blvd, Hendersonville, TN 37075

**Present:** Gina Hutson, Warren Garrett, Nick Tuttle, Eric Gardner, Brian Mulligan, Aaron Hickson, Jennifer Sauer, Jeff Shaver, Adam Meadors, Justin Bryan, Cindy Wheeler, Joe Phillips, Bonnie Ervin, Katherine Cruz, Alisa Huling, Cynthia Hernandez.

**Quest Speaker:** Jennifer Sauer (TSP)

We want to thank Jennifer immensely for her providing us with information regarding Environmental Literacy through TSP.

### **Discussion:**

General discussion among group circulated ~~questions and answers from various cities, Rutherford and Sumner County regarding Education and Outreach opportunities. Group included Goodlettsville, Tennessee State Parks, CEC, INC., ADS Pipe, Mt. Juliet, Gallatin, White House, Rutherford County, La Vergne, Volunteer in Millersville and Tennessee Environmental Council.~~

The Tennessee Department of Environmental Conservation (TDEC), in accordance with its mission to enhance quality of life and service as stewards of Tennessee's natural beauty, is working to facilitate increased environmental education across Tennessee. The hope is to ensure that young Tennesseans will develop fundamental knowledge and technical skills to create a cleaner, more prosperous future.

NPDES (Public Education and Outreach)

#### **Reaching Diverse Audiences**

The public education program should use a mix of appropriate local strategies to address the viewpoints and concerns of a variety of audiences and communities, including minority and disadvantaged communities, as well as children. Printing posters and brochures in more than one language or posting large warning signs (e.g., cautioning against fishing or swimming) near storm sewer outfalls are methods that can be used to reach audiences less likely to read standard materials. Directing materials or outreach programs toward specific groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts is also recommended. For example, information could be provided to restaurants on the effects of grease clogging storm drains and to auto garages on the effects of dumping used oil into storm drains.

MTSG is considering the use of this program along with the WET program for fulfillment of the above minimum measures of compliance. As with all programs dependent on volunteers, challenges do arise. See below.

NPDES (Public Participation/Involvement)

**Implementation Challenges**

The best way to handle common notification and recruitment challenges is to know the audience and think creatively about how to gain its attention and interest. Traditional methods of soliciting public input are not always successful in generating interest, and subsequent involvement, in all sectors of the community. For example, municipalities often rely solely on advertising in local newspapers to announce public meetings and other opportunities for public involvement. Since there may be large sectors of the population who do not read the local press, the audience reached may be limited. Therefore, alternative advertising methods should be used whenever possible, including radio or television spots, postings at bus or subway stops, announcements in neighborhood newsletters, announcements at civic organization meetings, distribution of flyers, mass mailings, door-to-door visits, telephone notifications, and multilingual announcements. These efforts, of course, are tied closely to the efforts for the public education and outreach minimum control measure (see Fact Sheet 2.3).

In addition, advertising and soliciting help should be targeted at specific population sectors, including ethnic, minority, and low-income communities; academia and educational institutions; neighborhood and community groups; outdoor recreation groups; and business and industry. The goal is to involve a diverse cross-section of people who can offer a multitude of concerns, ideas, and connections during the program development process.

Jennifer promised to take our interests and concerns to management for consideration on implementation of program that would combine stormwater with the environmental literacy.

**Additional Comments and Discussion**

**Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.**

**Don't forget! Annual reports will be due soon!**

**Please connect with us on Facebook and share our page!**

- **Next Meeting:** October 5, 2016. 9 am (Dickson)

(Details on next Agenda)

**Upcoming Events:**

There were no additional comments and the meeting adjourned at 10:45 a.m.

**Respectfully submitted,**

**W. Garrett**

**Stormwater Coordinator/Goodlettsville TN.**

**Forming Partnerships**

**Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.**

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Wednesday, October 5, 2016

**Time:** 9 a.m.

**Place:** *Dickson City Hall (Council Chambers)*

*600 East Walnut Street, Dickson TN*

**Present:** Gina Hutson, Warren Garrett, Brian Mulligan, Adam Meadors, Paul Davis, Rick Mayo, Rodney Joyner, Tracey Barrow, Bret Stock, Andy Garrett, Derrick Long

**Quest Speaker:** Warren Garrett

*(Thank you Derrick and the City of Dickson for hosting our meeting)*

### **Discussion:**

General discussion among group circulated questions and answers from various cities regarding Education and Outreach opportunities. Group included Goodlettsville, Paul Davis, ADS Pipe, Mt. Juliet, Collier Environmental, Dickson and Sumner County.

The open discussion included all aspects of our annual report and the six required BMP's regarding MS4 compliance and how best to document activities, events, inspections etc. in order to provide documentation to TDEC as requested during an audit. Below listed were the individual questions that have actually been addressed by TDEC via audit:

Preparing for an Audit, what should be expected?

1. The ability of the program to answer the 6 minimum BMP's
2. Written Policies and Procedures for routine evolutions (inspections, enforcement actions)
3. Legal Authority of the program (Ordinances, Resolutions)
4. How EPSC Inspections are conducted
5. What stage of completion are your current projects?
6. Complaint and Project file checked for documentation and completeness
7. Record keeping in both hardcopy and electronic?
8. Public Education and Outreach procedures and documentation.

Paul Davis was very helpful in commenting with extensive TDEC knowledge, suggesting that MS4's coordinate with each other in performing mock audits of each other's programs. This would help each other prepare for proper documentation retention. Paul also explained that the process in the eyes of TDEC was to have MS4's target problem areas within their jurisdictions and address those issues through education and outreach. Make sure to document the when, where, and how!

Attached to this will be the actual audit with confidential information blocked out.

We hope everyone gained some valuable information from today's meeting.

#### **Additional Comments and Discussion**

Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.

We are still looking into meeting facilitation sharing between group members, will discuss more at next meeting.

Don't forget NOI is due in 90 to 180 days dependent on MS4 program status.

Please connect with us on Facebook and share our page!

October 15, 2016 Saturday 9-noon @ Public Works in Goodlettsville (Stream Cleanup Event) Lunch included for volunteers.

- **Next Meeting:** November 2, 2016. 9 am

(Details on next Agenda)

**Adjourned:**  
10:45 a.m.

***Respectfully submitted,***

***W. Garrett***

***Stormwater Coordinator/Goodlettsville TN.***

### **Forming Partnerships**

**Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.**

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Wednesday, November 2, 2016

**Time:** 9 a.m.

**Place:** *Cracker Barrel 235 Long Hollow Pike, Goodlettsville*

**Present:** Warren Garrett, Paul Davis, Adam Meadors, Jennifer Watson, Cynthia Hernandez, Joe Phillips, Cindy Wheeler, Michael Barr, Jeremy Polk, Brian Mulligan.

**Quest Speaker:** Group Discussion

### **Discussion:**

General discussion among group circulated questions and answers from various cities regarding Education and Outreach opportunities. Group included Goodlettsville, Paul Davis, ADS Pipe, Mt. Juliet, Millersville, Gallatin, White House, Spring Hill and Tennessee Environmental Council, regarding MS4 compliance and how best to document activities and events.

### What Is Required?

To satisfy this minimum control measure, the operator of a regulated small MS4 needs to:

1. Implement a public education program to distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of stormwater discharges on local waterbodies and the steps that can be taken to reduce stormwater pollution; and
2. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure. Some program implementation approaches, BMPs (i.e., the program actions/activities), and measurable goals are suggested below.

#### A. Forming Partnerships

Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from nongovernmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.

#### B. Using Educational Materials and Strategies

Operators of regulated small MS4s may use stormwater educational information provided by their State, Tribe, EPA Region, or environmental, public interest, or trade organizations instead of developing their own materials. Operators should strive to make their materials and activities relevant to local situations and issues, and incorporate a variety of strategies to ensure maximum coverage. Some examples include:

- Brochures or fact sheets for general public and specific audiences;
- Recreational guides to educate groups such as golfers, hikers, paddlers, climbers, fishermen, and campers;
- Alternative information sources, such as web sites, bumper stickers, refrigerator magnets, posters for bus and subway stops, and restaurant placemats;
- A library of educational materials for community and school groups; • Volunteer citizen educators to staff a public education task force;
- Event participation with educational displays at home shows and community festivals;
- Educational programs for school-age children;
- Storm drain stenciling of storm drains with messages such as "Do Not Dump - Drains Directly to Lake;"
- Stormwater hotlines for information and for citizen reporting of polluters;
- Economic incentives to citizens and businesses (e.g., rebates to homeowners purchasing mulching Lawnmowers or biodegradable lawn products); and
- Tributary signage to increase public awareness of local water resources.

**Cindy Wheeler** brought forth the realization that without state mandates for schools to provide water quality in their curriculum, we as MS4's are hard pressed to interact in that capacity, we will be more productive addressing scout groups etc.

**Paul Davis** as always, is a blessing to our group and provides guidance on these issues to the MS4 programs. Paul suggested that we look into vehicle wraps for stormwater education and outreach. Paul also stressed that MS4's involve their communities as much as possible, listen to what the residents are complaining about and fix those problems first. Let's not get stuck on just brochure or minimal compliance.

**Joe Phillips** suggested Bill Board education. Goodlettsville is gathering information on this approach.

**Warren Garrett and Adam Meadors** will be seeking guidance from TDEC on option 2 in the new permit on 11/9/2016. TDEC will share the breakdown at a near future MTSG meeting and answer any questions.

**Cynthia Hernandez** brought the group some very helpful information from Tennessee environmental Council along with her education and Outreach program:

The Tennessee Environmental Council ([tectn.org](http://tectn.org)) is a nonprofit that educates and advocates for the conservation and improvement of the environment, communities and public health. We have 2 main projects aimed to improve water quality: Watershed Support and the Tennessee Tree Project.

The Council's watershed educational outreach gives students an opportunity to sample local waters and assess the quantitative and qualitative data. Data includes: a macroinvertebrate survey, a stream habitat survey, and chemistry/physical tests including pH, dissolved oxygen, nitrates, phosphates, turbidity and temperature. We can do this in, or outside, of the classroom. Following the students analysis, we work with the students to draw conclusions and to develop projects. We then work with students to implement improvements in their local community.

Our "Education to Action" plan, formally known as "Protecting our Watershed Curriculum" is available on our website: <http://tectn.org/protectingourwatershedcurriculum/>

Tennessee Wild Side did a segment on our watershed education program: <http://wildsidetv.com/video/watershed-ed/>

The Tennessee Tree Project is a program with the vision to engage 500K volunteers by planting and caring for 1 million native trees in Tennessee by the year 2020. For the past two years TEC has spearheaded the collaboration of dozens of agencies and community groups, collectively distributing and planting 50K free native tree seedlings in one day, engaging more than 9,000 volunteers, in 93 of Tennessee's 95 counties. In 2017, we are expanding our goal to plant **100K trees** in one day - February 25, 2017. The alternate rain date will be March 11. Save the date(s)!

For general information about the TN Tree Project visit:

<http://tectn.org/programs/tree/>

Also, our current promotion is Veteran's Day/Arbor Day. Tennessee residents can sign up for a free tree(s) to plant in honor of their favorite Veteran. Visit the link to register: <https://app.etapestry.com/.../TennesseeEnvi.../default/index.php>

**Jeremy Polk from Spring Hill** brought a very impressive power point presentation on his work of education and outreach within his MS4 program. Due to time restraints and distractions (restaurant) he was unable to present to group. Next meeting will be in Spring Hill to allow Jeremy o share his presentation with all of us. We will send out date, time and location on our next agenda.

We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

**Additional Comments and Discussion**

Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.

Don't forget NOI is due in 90 to 180 days dependent on MS4 program status.

- **Next Meeting:** To be determined  
(Details on next Agenda)

**Adjourned:**  
10:45 a.m.

*Respectfully submitted,*

**W. Garrett**

**Stormwater Coordinator/Goodlettsville TN.**

#### **Forming Partnerships**

*Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.*

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Wednesday, December 14, 2016

**Time:** 10 a.m.

**Place:** *(Aquatic Center) 1499 Steam Plant Rd., Gallatin, TN.*

**Present:** Warren Garrett, Paul Davis, Jennifer Watson, Cynthia Hernandez, Joe Phillips, Cindy Wheeler, Brian Mulligan, Mindy Moore, Duane Allen, Ashlie Farmer, Jeff Bryant, Carlton Cobb, Bryan Price, Daniel Lockart, Dana Waits, Mike Bertotti, John McFadden, David Sims.

**Quest Speakers:** John McFadden (TEC), David Sims (TWRA)

**We thank you both very much for your contribution to our meeting event as well as our communities!**

### **Discussion:**

1. Dr. John McFadden from Tennessee Environmental Council will be our guest speaker today presenting the upcoming annual 100k tree day in Tennessee, (formerly known as 50k tree day). (See TEC website)
2. Option 2 of our new permit offers MS4's an alternative to the traditional option 1, we will cover the information that myself and Adam Meadors discussed with TDEC for guidance towards implementation. This is information for any MS4 that is considering this option. TDEC will be presenting more in-depth discussion with TNSA as well as our MTSG group if desired in the future. (See attachments)
3. Community Advisory Panel for Ordinance review. (CAP) (See attachments)
4. Tour of TWRA aquatic facility in Gallatin at TVA Steam Plant. Mr. David Sims from the TWRA hosted the event and provided a tour for all participants educating us on the process and complications of raising mussels for release back into the natural habitats. TWRA has a new facility through mitigation from TVA. The life of the mussels depends on fish of different species in order to progress to the next stage in life. The diversity of the mussels also depends on the diversity of the fish. Very interesting and valuable tour! Thank you David! See Facebook page for photos (Mid-Tennessee Stormwater Group)

We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

This information will be available on our Facebook page.

**Additional Comments and Discussion**

Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.

**Merry Christmas and Happy New Year!**

- **Next Meeting:** To be determined

(Details on next Agenda)

**Adjourned:**

1 pm

***Respectfully submitted,***

***W. Garrett***

***Stormwater Coordinator/Goodlettsville TN.***

***Forming Partnerships***

***Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.***

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Wednesday, January 11, 2017

**Time:** 10 a.m.

**Place:** Gallatin Civic Center -210 Albert Gallatin Avenue, Gallatin, TN 37066.

**Present:** Warren Garrett, Paul Davis\*, Jennifer Watson, Joe Phillips, Brian Mulligan, Mindy Moore\*, Duane Allen\*, Carlton Cobb, Daniel Lockart, Helen Morrison, Rick Mayo\*, Lyle Patterson, Lanny Smith, Adam Meadors, Greg Edrington\*, Mike Roberts, Steve Casey, Gina Hutson\*, Tracey Barrow\*, John Dewaal\*.

Continued Education Credits\*

**Quest Speakers:** Daniel Lockart/Brian Mulligan/Mike Roberts from ADS (Advanced Drainage Systems)

**We thank you very much for your contribution to our meeting event as well as our communities! Thank you for Lunch!**

### **Discussion:**

1. Covered a brief overview of the citizen involvement aspect per permit for Goodlettsville's Community Advisory Panel.
2. Showcased the City of White House new vehicle wrap for education and outreach within their community, very impressive!
3. Below is the contact information if your city/county would like to have students earn credit with your volunteer event. If you plan to host a specified date, you can complete the form at the link below to be included on our tnAchieves Community Service Days handout that will be distributed to all TN Promise students. We will also include your opportunity on our website and social media accounts.

<https://tnachieves.org/mentors/community-service-day-nomination/>

### **Ben Sterling**

Asst. Director of Outreach, [tnAchieves](#)

(865) 567-1140

[tnAchieves on Facebook](#) | [tnAchieves on Twitter](#)

4. Daniel Lockart from ADS (Advanced Drainage Systems) presented information on their FlexStorm inlet protection product line, attached is the handouts and Power Point Presentation.

---

We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

This information will be available on our Facebook page.

**Additional Comments and Discussion**

Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.

- **Next Meeting:** February 1, 2017

(Details on next Agenda)

**Adjourned:**

12 pm

***Respectfully submitted,***

***W. Garrett***

***Stormwater Coordinator/Goodlettsville TN.***

***Forming Partnerships***

***Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.***

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Wednesday, March 8, 2017

**Time:** 9 a.m.

**Place:** Gallatin Civic Center -210 Albert Gallatin Avenue, Gallatin, TN 37066.

**Present:** Warren Garrett, Jennifer Watson, Duane Allen, Helen Morrison, Rick Mayo, Gina Hutson, Tracey Barrow, Eric Bischoff, Winston Burney, Clarke Willey, Zachary Stilp, Lee Anne Faust, Jack Sundrud, Nick Tuttle, Dana Waits.

**Quest Speakers:** Bob Ary, and Lee Anne Faust from UT Extension

**We thank you very much for your contribution to our meeting event as well as our communities!**

### **Discussion:**

1. Covered a brief overview of the upcoming education exemption SB383. See attached
2. UT Extension provided a power point presentation of "The right plant, right place"

### Program Areas

- a. Agriculture/Natural Resources-----2007 (1673 farms)----2012 (1355 farms)
- b. Community/Economical Development
- c. Family Consumer Sciences-----Parenting Apart
- d. 4-H Youth Development Program-----180 clubs----4585 Members 2017

### Tennessee Smart Yards

#### Foundational Nine Principles

1. Right plant, Right place
2. Manage soils, mulch
3. Fertilize
4. Water efficiently
5. Manage pests
6. Reduce, reuse and recycle
7. Wildlife corridor
8. Water edge riparian buffer
9. Reduce stormwater runoff

Check soil conditions

Compile plant list

Avoid invasive/Exotic plants

Preserve existing vegetation, especially trees during land disturbance activities

When mowing lawn retain a minimum grass height of 2-1/2"

3. Jennifer Watson offered information on "After the Storm" publications, a citizens guide to understanding stormwater. This is available from:

[www.epa.gov/npdes/stormwater](http://www.epa.gov/npdes/stormwater)

[www.epa.gov/nps](http://www.epa.gov/nps)

Thank you to UT Extension and Jennifer!!!

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We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

This information will be available on our Facebook page.

**Additional Comments and Discussion**

Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.

- **Next Meeting:** April 12, 2017

(Details on next Agenda)

**Adjourned:**

10:30 am

***Respectfully submitted,***

***W. Garrett***

***Stormwater Coordinator/Goodlettsville TN.***

### **Forming Partnerships**

***Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.***

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Wednesday, April 12, 2017

**Time:** 10 a.m.

**Place:** Gallatin Civic Center -210 Albert Gallatin Avenue, Gallatin, TN 37066.

**Present:** Warren Garrett, Jennifer Watson, Rick Mayo, Tracey Barrow, Rodney Joyner, Bill Murph, Paul Davis, Zachary Stilp, Jeff Smallwood, Greg Edrington, Daniel Lockart, Adam Meadors, Steve Casey, Clarke Willey, Hal Hendricks, Britlyn Duncan, Janel Garrett, Aaron Hickson, Carlton Cobb, Bryan Price, Brian Mulligan, Darryl Sapp, Scott Vollmer.

**Quest Speakers:**

Darryl Sapp/Scott Vollmer (Old Castle/Belgard)

Janel Garrett/Britlyn Duncan (Sumner County Coordinated School Health)

Hal Hendricks (Director of Sumner County Health Dept.)

**Thank you Scott and Darryl for the great lunch and presentation, it is very much appreciated!**

**Thank you Sumner County Health and CSH for the excellent presentation and update of continued improvement of the community health through education and outreach events.**

**We thank you all very much for your contribution to our meeting event as well as our communities!**

**Discussion:**

1. Warren Garrett- provided the group with some brief insights into the permit requirements for the SWMP. Please take time to look at and use the attached SWMP if you wish. It is a work in progress for all of us MS4's and no sense in starting from scratch! If you are a new MS4 permit, you will have a full permit cycle to develop this information, if you are a second permit recipient, then you will have 18 months from issuance to complete a review and update. Remember to get TDEC permission in writing before eliminating any activity/control measure.

The summary that is required upon review and update needs to be kept on file per TDEC in event of audit; it may be requested for confirmation of compliance.

The City of Goodlettsville also presented the recent Community/Stream Cleanup results and provided t-shirts.

2. Janel Garrett/Hal Hendricks/Britlyn Duncan- Presented the Walk Across Sumner program in addition to Sumner County Health Departments overview of health rankings and it's direct

effect on economic development. Attached is the 2017 Sponsorship Form if interested in becoming a sponsor. The outreach is tremendous with the possibility of reaching up to 30,000 residents in Sumner County alone.

Janel left sample t-shirts and packets on display table along with contact cards for attendees to take for presentation to their departments.

The City of Goodlettsville is sponsoring Walk Across Sumner for year 2017. This will allow the City Stormwater Department the ability to provide 4500 pieces of water quality literature to all participants in this year's event! We will also be providing our banner at the kickoff, have logo displayed on Walk across Sumner homepage for entire year, logo printed on all materials, large logo at top of all t-shirts and the option to provide even more water quality promotional materials at business site!

The Mid-Tennessee Stormwater Group is still open to a joint city sponsorship, if interested please respond via email to [wgarrett@goodlettsville.gov](mailto:wgarrett@goodlettsville.gov). If acceptable, the logo will be represented by our water drop and MTSG.



Sumner County  
Contact Janel Garrett @  
[Janel.garrett@sumnerschools.org](mailto:Janel.garrett@sumnerschools.org)

Wilson County  
Williamson County  
Will be forwarded to everyone when I get the information.

3. Scott Vollmer/Darryl Sapp- extended the MTSG group with a very satisfying lunch as well as a comprehensive look into permeable pavers and their comparable cost and value in LID storm sewer planning. The presentation was very informative and impressive, to the extent that I feel our department may look into possible implementation in future projects for subdivisions. This of course will have to be acceptable in planning and codes.

I believe that the possibility of no drainage ditches or conveyance pipes/catch basins or detention ponds, could be a reality that would benefit property owner aesthetics, curb appeal as well as drive ability in rain events. The cost would be comparable up front since subgrade requirements would counter conveyance systems. Future maintenance would also be limited, not only in drainage maintenance, but asphalt repairs would be non-existent and detention basin property would be buildable!

Our current bond/surety requirement would also be comparable in cost! Great presentation from both gentlemen!

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We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

This information will be available on our Facebook page.

**Additional Comments and Discussion**

**Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.**

- **Next Meeting:** May 10, 2017

(Details on next Agenda)

**Adjourned:**

12:30 am

***Respectfully submitted,***

***W. Garrett***

***Stormwater Coordinator/Goodlettsville TN.***

***Forming Partnerships***

***Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.***

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Wednesday, May 10, 2017

**Time:** 10 a.m.

**Place:** Gallatin Civic Center -210 Albert Gallatin Avenue, Gallatin, TN 37066.

**Present:** Warren Garrett, Tracey Barrow, Paul Davis, Greg Edrington, Daniel Lockart, Adam Meadors, Clarke Willey, Brian Mulligan, Beverly Goodwin, Guinn Nolen, Mike Bertotti, Duane Allen, Mindy Moore, Rebekah Pomohaci, Eric Gardner, Gina Hutson, Michael Barr, Cindy Wheeler, Joe Phillips, Travis Dorman, Sandy Camargo.

**Quest Speakers:**

Brian Mulligan, Sandy Camargo, Travis Dorman from Advanced Drainage Systems.

**Thank you Brian, Travis and Sandy for the great lunch and presentation, it is very much appreciated!**

**We thank you all very much for your contribution to our meeting event as well as our communities!**

**Discussion:**

1. How do I comply with Water Quality Requirements?
  - ↓ TDEC MS4 permit MCM6 Criteria
  - ↓ What is MEP?
  - ↓ Benefits of GI & LID
  - ↓ Obstacles of infiltration
  - ↓ Performance criteria
  - ↓ Local factors
  - ↓ 80% of what?
  - ↓ Performance factors
  - ↓ Inserts and traps
  - ↓ Vault types
  - ↓ Hydrodynamic separation (HIL first defense), (HIL downstream defender), (Bay separator).
  - ↓ Filtration
  - ↓ Bay filter (Vault or Baffle box)
  - ↓ Spiral layer design
  - ↓ NJCAT (Flow based design)

Product descriptions are attached to email for reference.

2. Brief discussion regarding HB 362 and SB 295. In SB 295 the language is vague regarding how TDEC will gather information for post construction costs. However HB 362 makes it very clear that this is TDEC's responsibility. TDEC will be sending out more information soon as to the extent of responsibility.

3. A question arose from the group regarding municipalities being left with poor engineering in subdivisions from years past, and what can be done now to fix the issues.

MTAS- Drainage Law

Drainage Law and the Responsibility of the Design Engineer

"The ultimate responsibility (and/or liability) rests on the design engineer who seals the plans"

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We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

This information will be available on our Facebook page.

#### Additional Comments and Discussion

Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.

- Next Meeting: June 7, 2017

(Details on next Agenda)

Adjourned:

12:30 pm

*Respectfully submitted,*

**W. Garrett**

**Stormwater Coordinator/Goodlettsville TN.**

*Forming Partnerships*

*Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.*

## Mid-Tennessee Stormwater Group Meeting Minutes

**Date:** Wednesday, June 7, 2017

**Time:** 10 a.m.

**Place:** Gallatin Civic Center -210 Albert Gallatin Avenue, Gallatin, TN 37066.

**Present:** Warren Garrett, Trey Hightower, Doug Buch, Jennifer Watson, Adam Meadors, Liana Dranes, Gina Hutson, David Harris, Steve Casey, Nick Tuttle, Brian Mulligan, Rick Mayo, Carlton Cobb, Helen Morrison, Rebekah Pomohaci, Guinn Nolen, Joe Phillips, Greg Edrington, Clarke Wiley

1. **Trey Hightower/Jen-Hill Construction Materials**  
**Doug Buch/PaveDrain**  
**Presentation on PaveDrain ([www.pavedrain.com](http://www.pavedrain.com)). Pavedrain is a Permeable Articulating Concrete block. Please see attached information**  
**We thank Trey and Doug for the valuable information regarding their product. Maintenance reduction is always a key factor in choice of products or methods. We also want to thank you for the great lunch and networking! Attached is the flyer information provided at the meeting.**
  
2. **City of Goodlettsville (What's new with the CGP for 2016?)**
  - a. Existing Sites
  - b. NOC
  - c. Tennessee Secretary of State (SOS) control
  - d. Waters with Unavailable Parameters
  - e. Water Quality Riparian Buffer Zones
  - f. Twice Weekly Inspections
  - g. Site Assesments
  - h. Soil Analysis

This material is also attached as a power point print, of which we covered in the meeting.

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We hope everyone gained some valuable information from today's meeting, thanks to everyone for the great interaction!

This information will be available on our Facebook page.

**Additional Comments and Discussion**

Please encourage all local municipalities/counties to attend our monthly meetings. The meetings provide an opportunity for the stormwater community to network and help each other by discussing current and ongoing issues.

- **Next Meeting:** July 19, 2017

(Details on next Agenda)

**Adjourned:**

12:00 pm

***Respectfully submitted,***

***W. Garrett***

***Stormwater Coordinator/Goodlettsville TN.***

***Forming Partnerships***

*Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.*

**PUBLIC EDUCATION/OUTREACH**

**International Erosion Control Association 2017  
Wet Weather Stormwater Conference**

2016/17

Warren Garrett

Join IECA

Municipal Wet  
Weather Stormwater  
Conference

Charleston, SC  
May 15-17, 2017

# 2017 Municipal Wet Weather Stormwater Conference

## Agenda

Professional Development Certificates

To access, login to your profile and click on the "claim credit" tab.

### Download Conference Materials

Select the session you are interested in and if there are materials available you will be given the option to download the power point and/or paper.

## Monday, May 15

**12:00 - 1:00PM - Registration**

**1:00 - 1:15PM - EPA Raincatcher Awards**

For the past four years, EPA Region 4 has held the annual Rain Catcher Awards competition for excellence in implementation of stormwater Green Infrastructure (GI) projects. EPA will present the winning GI projects and congratulate the Rain Catcher Award winners in the Municipal, Commercial and Neighborhood/Community category.

**1:15 - 2:00PM - Opening General Session**

Historical Hydrologic Patterns and Extremes, and What We Might Expect in the Next 50 to 100 Years Across Southeast South Carolina and Georgia - Ron Morales, National Weather Service - Charleston, SC

**2:00 - 2:30PM - Afternoon Break and Networking**

**2:30 - 3:10PM - Concurrent Technical Session Block One**

Case Study: Getting the Most Out of Capital Improvement Money Using GIS - Earl Bingham, WK Dickson & Co., Inc.

Development of Watershed Plans - Angela Vandelay & Kelli Garcia, Amec Foster Wheeler

Case Study: I Can't Achieve Final Stabilization, What Can I Do Now? - J.P. Johns, Woolpert

**3:15 - 3:55PM - Concurrent Technical Session Block Two**

Case Study: Green Infrastructure Operation and Maintenance Successes and Experiences - Kari Mackenbach, ms consultants, inc

Managing MS4 Risk: TMDL Alternative Plans - Beth McLaughlin, Amec Foster Wheeler

Turning Your Soil into Green Infrastructure - Rich McLaughlin, North Carolina State University

**4:00 - 4:40PM - Concurrent Technical Session Block Three**

Case Study: Pervious Concrete & Stormwater Infiltration in Piedmont Clay Soils - Chris Estes, Estes Design Inc.

MS4 Pollution Prevention and Good Housekeeping in Mobile, AL - America's Rainiest City! - Rosemary Ginn Sawyer & Denise Brown, City of Mobile

Case Study: Nashville Zoo Stormwater Retrofit: Applying Level Spreader and Check Dam Design Principles to Restore Riparian Area and Protect Receiving Stream - Steven Casey, Civil Environmental Consultants, Inc.

**4:45 - 6:15PM - IECA Southeast Chapter Meeting & Reception**

# Tuesday, May 16

## **7:30 - 8:30 AM - Registration & Continental Breakfast**

### **8:30 - 9:10AM - Concurrent Technical Session Block Four**

Case Study: Evaluation of Pollutants in Wastewater Produced from Air Conditioning Cleaning Operations in Durham, North Carolina - Jonathan Baker

Case Study: EPA's Trash Free Waters Program A Strategic Approach To Reduce Trash In Aquatic Ecosystems - Christopher Plymale

Case Study: Evidence-based Guidelines for Microbial Source Tracking Projects - James Herrin

### **9:15 - 9:55AM - Concurrent Technical Session Block Five**

BMP Keys to Success - Long Term Maintenance and Operation Strategies - Heather S. Davis, Charlotte-Mecklenburg Storm Water Services

Overview of EPA Remand Rule for Small MS4 General Permits - Mary Kuo, US EPA Region 4

Case Study: Monitoring a Total Maximum Daily Load Stream for Bacteria - Where do they come from? - Tanya Strickland, City of North Augusta

## **9:55 - 10:30AM - Morning Break and Networking**

### **10:30 - 11:10AM - Concurrent Technical Session Block Six**

Town Creek Culvert - Green Infrastructure in Urban Core - Kevin Mulligan & Lisa Kirby, City of Greenville

Case Study: Proactive and Efficient MS4 Compliance, Richland County, South Carolina - Synithia Williams, Richland County & Lewallen Aylin, Brown & Caldwell

Case Study: Use of Anionic PAM Blends to Mitigate Sediment and Turbidity Impacts on Water Quality - Eddie Snell, Applied Polymer Systems, Inc.

### **11:15 - 11:55AM - Concurrent Technical Session Block Seven**

City of Chattanooga Innovative Incentive Initiative - Don Green, City of Chattanooga

Field vs. Laboratory Testing of Manufactured Stormwater Treatment

Devices: 'You Can't Always Get What You Want' - Mark Miller, AquaShield, Inc.

Flue Gas Desulfurization Gypsum and Polyacrylamide to Reduce Runoff, Erosion, Sediment and Nutrient Load from Disturbed Areas - Malcolm Sumner - University of Georgia

**11:55AM - 12:50PM - Lunch**

**12:50 - 1:30PM - Concurrent Technical Session Block Eight**

Case Study: How to Maximize Effectiveness of Your MS4 Stormwater Program by Using Risk-Based Stormwater Asset Management - Mark Van Auken, Arcadis

Case Study: Stream and Wetland Restoration + Regenerative Stormwater Conveyance = Significant Functional Uplift - Ward Marotti, WK Dickson  
Preserving Water Quality During Construction - Richard McLaughlin, North Carolina State University

**1:35 - 2:15PM - Concurrent Technical Session Block Nine**

Low Impact Design and the Soil Conundrum - Kyle Ganson, Advanced Drainage Systems

The New NRCS Rainfall Distributions and How They Will Change Your Hydrologic Results - Steve Godfrey, Woolpert, Inc.

Alabama's State-wide Erosion and Sediment Control Program, Providing Construction Stormwater Technology for the ESC industry in Alabama - Earl Norton, Alabama Soil and Water Conservation Committee

**2:25 - 3:05PM - Concurrent Technical Session Block Ten**

The LID Technology Selection Pyramid - Selecting a Green Infrastructure Stormwater Design Approach - Mark Miller, AquaShield, Inc.

Case Study: Unraveling the Dissolved Oxygen Total Maximum Daily Load Truth - Rebecca Coulter, Woolpert

Case Study: Biotic Soil Technology for Sustainable Erosion Control and Revegetation - Successful Case Studies - Marc Theisen, Profile Products

**3:05 - 3:35PM - Afternoon Break & Networking with Door Prizes**

**3:35 - 4:15PM - Concurrent Technical Session Block Eleven**

Case Study: Continuous Monitoring and Adaptive Control: Innovative Approaches to Retrofitting Stormwater Ponds - Viktor Hlas, Opti  
Case Study: Benthic Macroinvertebrate Habitat Enhancement + Relocation = Impairment Delisting - Ward Marotti, WK Dickson  
Protecting Streams from the Impacts of Unplanned Releases of Wastewater and Drinking Water - Natalie Landry, Knox County Stormwater

**4:20 - 5:00PM - Concurrent Technical Session Block Twelve**

An Engineering Methodology to Quantify the Stormwater Runoff Reduction of Green Roofs - Joshua Robinson, Robinson Design Engineers  
Stream Monitoring for Compliance and the Tennessee Phase II MS4 General Permit - Adam Reynolds, Hamilton County Water Quality Program  
Creating a Successful SWPPP for your Municipal Facility - Amy Mann, Knox County Stormwater Management

**5:00 - 7:00PM - Exhibitor Reception with Door Prizes**

## Wednesday, May 17

**7:00 - 8:00AM - Registration**

**8:00 - 9:00AM - General Session**

Local/State Level Certification Discussion

**9:00 - 10:00AM - General Session - EPA Updates**

EPA Region 4 Stormwater Compliance Activities - Sean Ireland, US EPA - Region 4

Construction General Permit - Mike Mitchell, US EPA - Region 4

**10:00 - 10:30AM - Morning Break and Networking**

**10:30 - 11:30 - Closing Keynote**

Ecohydrological Studies at Santee Experimental Forest - Baseline Data, Extreme Events, and Hydrological Vulnerabilities in the context of

**PUBLIC EDUCATION/OUTREACH**

**Tennessee Stormwater Association T.A.B.  
program participation**

2016/17

Warren Garrett

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - July, 2016

Station (s)	City	Region	Units	Total
WATX AM / FM	Algood / Cookeville	Middle	99	\$ 560.99
WSLV	Ardmore	Middle	15	\$ 150.00
WMPS	Bartlett	West	18	\$ 900.00
WBXE FM	Baxter / Cookeville	Middle	58	\$ 715.33
WRKM	Carthage	Middle	11	\$ 88.00
WUCZ FM	Carthage	Middle	8	\$ 80.00
WDEF FM	Chattanooga	East	8	\$ 480.00
WDOD FM	Chattanooga	East	9	\$ 540.00
WGOW	Chattanooga	East	7	\$ 280.00
WGOW FM	Chattanooga	East	9	\$ 360.00
WKXJ FM	Chattanooga	East	10	\$ 60.00
WLND FM	Chattanooga	East	10	\$ 50.00
WOGT FM	Chattanooga	East	8	\$ 320.00
WRXR FM	Chattanooga	East	10	\$ 110.00
WSKZ FM	Chattanooga	East	3	\$ 120.00
WCVQ FM	Clarksville	Middle	33	\$ 990.00
WCVQ HD 2-SUNNY	Clarksville	Middle	27	\$ 405.00
WKFN	Clarksville	Middle	40	\$ 1,200.00
WRND FM	Clarksville	Middle	31	\$ 930.00
WVVR FM	Clarksville	Middle	27	\$ 810.00
WZZP FM	Clarksville	Middle	32	\$ 960.00
WUSY FM	Cleveland / Chattanooga	East	10	\$ 650.00
WUSY FM HD2	Cleveland / Chattanooga	East	10	\$ 10.00
WCRV	Collierville / Memphis	West	5	\$ 110.00
WKOM FM	Columbia	Middle	31	\$ 255.75
WKRM	Columbia	Middle	31	\$ 240.25
WGSQ FM	Cookeville	Middle	7	\$ 315.00
WHUB	Cookeville	Middle	6	\$ 90.00
WKSW FM	Cookeville	Middle	6	\$ 150.00
WPTN AM / FM	Cookeville	Middle	8	\$ 112.00
WKBL	Covington	West	62	\$ 868.00
WKBQ FM	Covington	West	62	\$ 1,488.00
WAEW AM / FM	Crossville	Middle	10	\$ 150.00
WCSV	Crossville	Middle	10	\$ 150.00
WOWF FM	Crossville	Middle	10	\$ 400.00
WPBX	Crossville	Middle	10	\$ 300.00
WEKR	Fayetteville	Middle	20	\$ 200.00
WYTM FM	Fayetteville	Middle	20	\$ 200.00
WRLT FM	Franklin / Nashville	Middle	49	\$ 805.56
WWKF FM	Fulton / Union City	West	16	\$ 160.00
WHIN	Gallatin	Middle	7	\$ 112.00
WMRO	Gallatin	Middle	7	\$ 49.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	27	\$ 675.00
WDXI	Jackson	West	20	\$ 120.00
WMXX	Jackson	West	20	\$ 120.00
WKPT AM / FM	Kingsport	East	19	\$ 190.00
WRZK FM	Kingsport	East	16	\$ 240.00
WTFM FM	Kingsport	East	18	\$ 846.00
WCYQ FM	Knoxville	East	5	\$ 175.00
WKHT FM	Knoxville	East	5	\$ 150.00

WNOX FM	Knoxville	East	5	\$	125.00
WWST FM	Knoxville	East	5	\$	200.00
WBUZ FM	LaVergne / Nashville	Middle	25	\$	2,500.00
WBUZ FM-D3	LaVergne / Nashville	Middle	14	\$	350.00
WANT FM	Lebanon	Middle	14	\$	196.00
WZLT	Lexington TN	West	60	\$	540.00
WLQK FM	Livingston	Middle	62	\$	764.66
WMSR AM / FM	Manchester	Middle	50	\$	250.00
WCDZ FM	Martin/Dresden	West	27	\$	324.00
WHDM AM / FM	McKenzie	West	21	\$	84.00
WAKI	McMinnville	Middle	10	\$	50.00
WBMC	McMinnville	Middle	10	\$	80.00
WOWC FM	McMinnville	Middle	10	\$	120.00
WTRZ FM	McMinnville	Middle	10	\$	100.00
IDIA AM	Memphis	West	15	\$	150.00
IEGR FM	Memphis	West	15	\$	150.00
IHAL FM	Memphis	West	15	\$	150.00
IHRK FM	Memphis	West	16	\$	160.00
IREC	Memphis	West	16	\$	160.00
KJMS FM	Memphis	West	12	\$	1,200.00
KWNW FM	Memphis	West	15	\$	975.00
RJMS FM	Memphis	West	14	\$	140.00
RWNW FM	Memphis	West	15	\$	150.00
WDIA	Memphis	West	15	\$	1,050.00
WEGR FM	Memphis	West	16	\$	1,280.00
WHAL FM	Memphis	West	16	\$	1,280.00
WHBQ AM	Memphis	West	18	\$	900.00
WHRK FM	Memphis	West	12	\$	1,200.00
WLOK	Memphis	West	9	\$	405.00
WREC	Memphis	West	15	\$	1,200.00
WKXD FM	Monterey	Middle	56	\$	690.66
WCRK FM	Morristown	East	18	\$	288.00
WMTN	Morristown	East	20	\$	240.00
WCJK FM	Nashville	Middle	3	\$	300.00
WCRT	Nashville	Middle	5	\$	85.00
WECV FM	Nashville	Middle	5	\$	130.00
WJXA FM	Nashville	Middle	12	\$	1,800.00
WSIX FM	Nashville	Middle	1	\$	75.00
WAKQ FM	Paris	West	19	\$	76.00
WLZK FM	Paris	West	21	\$	84.00
WMUF FM	Paris	West	21	\$	84.00
WRQR AM / FM	Paris	West	21	\$	84.00
WTPR AM / FM	Paris	West	11	\$	44.00
WBFG	Parkers Crossroads	West	60	\$	600.00
WPRT FM	Peagram / Nashville	Middle	14	\$	1,400.00
WPRT FM-D2	Peagram / Nashville	Middle	37	\$	925.00
WKSR	Pulaski	Middle	26	\$	312.00
WKWX FM	Savannah	West	90	\$	450.00
WORM	Savannah	West	20	\$	120.00
WORM FM	Savannah/ Clifton	West	20	\$	120.00
WXOQ	Selmer/Bolivar	West	20	\$	120.00
WUUQ FM	South Pittsburg / Chattanooga	East	8	\$	480.00
WSMT	Sparta	Middle	10	\$	200.00
WTZX	Sparta	Middle	10	\$	40.00
WMTY	Sweetwater	East	26	\$	156.00

WMTY FM	Sweetwater	East	26	\$	156.00
WGOC	Tri-Cities	East	10	\$	400.00
WJCW	Tri-Cities	East	9	\$	360.00
WKOS	Tri-Cities	East	10	\$	400.00
WQUT	Tri-Cities	East	10	\$	400.00
WXSM	Tri-Cities	East	9	\$	360.00
KYTN FM	Union City	West	33	\$	495.00
WENK	Union City	West	14	\$	140.00
WQAK FM	Union City	West	40	\$	600.00
<b>TOTALS:</b>			<b>2272</b>	<b>\$</b>	<b>47,889.21</b>

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - August, 2016

Station (s)	City	Region	Units	Total
WATX AM / FM	Algood / Cookeville	Middle	73	\$ 413.66
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WMPS	Bartlett	West	24	\$ 1,200.00
WBXE FM	Baxter / Cookeville	Middle	59	\$ 727.66
WRKM	Carthage	Middle	10	\$ 80.00
WUCZ FM	Carthage	Middle	11	\$ 110.00
WDEF FM	Chattanooga	East	9	\$ 540.00
WDOD FM	Chattanooga	East	9	\$ 540.00
WGOW	Chattanooga	East	10	\$ 400.00
WGOW FM	Chattanooga	East	8	\$ 320.00
WOGT FM	Chattanooga	East	10	\$ 400.00
WSKZ FM	Chattanooga	East	6	\$ 240.00
WCVQ FM	Clarksville	Middle	27	\$ 810.00
WCVQ HD 2-SUNNY	Clarksville	Middle	25	\$ 375.00
WKFN	Clarksville	Middle	27	\$ 810.00
WRND FM	Clarksville	Middle	25	\$ 750.00
WVVR FM	Clarksville	Middle	33	\$ 990.00
WZZP FM	Clarksville	Middle	27	\$ 810.00
WCRV	Collierville / Memphis	West	6	\$ 132.00
WKOM FM	Columbia	Middle	31	\$ 255.75
WKRM	Columbia	Middle	31	\$ 240.25
WGSQ FM	Cookeville	Middle	4	\$ 180.00
WHUB	Cookeville	Middle	9	\$ 135.00
WKSW FM	Cookeville	Middle	7	\$ 175.00
WPTN AM / FM	Cookeville	Middle	6	\$ 84.00
WKBL	Covington	West	62	\$ 868.00
WKBQ FM	Covington	West	62	\$ 1,488.00
WAEW AM / FM	Crossville	Middle	13	\$ 195.00
WCSV	Crossville	Middle	13	\$ 195.00
WOWF FM	Crossville	Middle	13	\$ 520.00
WPBX	Crossville	Middle	12	\$ 360.00
WEKR	Fayetteville	Middle	20	\$ 200.00
WYTM FM	Fayetteville	Middle	20	\$ 200.00
WRLT FM	Franklin / Nashville	Middle	47	\$ 772.68
WHIN	Gallatin	Middle	10	\$ 160.00
WMRO	Gallatin	Middle	7	\$ 49.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	36	\$ 900.00
WDXI	Jackson	West	20	\$ 120.00
WMXX	Jackson	West	20	\$ 120.00
WKPT AM / FM	Kingsport	East	23	\$ 230.00
WRZK FM	Kingsport	East	16	\$ 240.00
WTFM FM	Kingsport	East	26	\$ 1,222.00
WCYQ FM	Knoxville	East	6	\$ 210.00
WKHT FM	Knoxville	East	6	\$ 180.00
WNOX FM	Knoxville	East	6	\$ 150.00
WWST FM	Knoxville	East	6	\$ 240.00
WBUZ FM	LaVergne / Nashville	Middle	34	\$ 3,400.00
WBUZ FM-D3	LaVergne / Nashville	Middle	18	\$ 450.00
WANT FM	Lebanon	Middle	16	\$ 224.00
WZLT	Lexington TN	West	60	\$ 540.00

WLQK FM	Livingston	Middle	64	\$	789.33
WCMT	Martin	West	42	\$	504.00
WCMT FM	Martin	West	49	\$	588.00
WAKI	McMinnville	Middle	13	\$	65.00
WBMC	McMinnville	Middle	13	\$	104.00
WOWC FM	McMinnville	Middle	13	\$	156.00
WTRZ FM	McMinnville	Middle	13	\$	130.00
IDIA AM	Memphis	West	14	\$	140.00
IEGR FM	Memphis	West	14	\$	140.00
IHAL FM	Memphis	West	13	\$	130.00
IHRK FM	Memphis	West	14	\$	140.00
IREC	Memphis	West	14	\$	140.00
KJMS FM	Memphis	West	12	\$	1,200.00
KWNW FM	Memphis	West	14	\$	910.00
RJMS FM	Memphis	West	14	\$	140.00
RWNW FM	Memphis	West	14	\$	140.00
WDIA	Memphis	West	14	\$	980.00
WEGR FM	Memphis	West	14	\$	1,120.00
WHAL FM	Memphis	West	14	\$	1,120.00
WHBQ AM	Memphis	West	24	\$	1,200.00
WHRK FM	Memphis	West	14	\$	1,400.00
WLOK	Memphis	West	12	\$	540.00
WREC	Memphis	West	14	\$	1,120.00
WKXD FM	Monterey	Middle	58	\$	715.33
WCRK FM	Morristown	East	24	\$	384.00
WMTN	Morristown	East	35	\$	420.00
WCJK FM	Nashville	Middle	4	\$	400.00
WCRT	Nashville	Middle	6	\$	102.00
WECV FM	Nashville	Middle	6	\$	156.00
WJXA FM	Nashville	Middle	14	\$	2,100.00
WLIK	Newport	East	12	\$	240.00
WAKQ FM	Paris	West	11	\$	44.00
WTPR AM / FM	Paris	West	12	\$	48.00
WBFG	Parkers Crossroads	West	60	\$	600.00
WPRT FM	Peagram / Nashville	Middle	18	\$	1,800.00
WPRT FM-D2	Peagram / Nashville	Middle	49	\$	1,225.00
WKWX FM	Savannah	West	90	\$	450.00
WORM	Savannah	West	20	\$	120.00
WORM FM	Savannah/ Clifton	West	20	\$	120.00
WXOQ	Selmer/Bolivar	West	20	\$	120.00
WUUQ FM	South Pittsburg / Chattanooga	East	9	\$	540.00
WSMT	Sparta	Middle	13	\$	260.00
WTZX	Sparta	Middle	13	\$	52.00
WMTY	Sweetwater	East	22	\$	132.00
WMTY FM	Sweetwater	East	22	\$	132.00
WGOC	Tri-Cities	East	12	\$	480.00
WJCW	Tri-Cities	East	12	\$	480.00
WKOS	Tri-Cities	East	12	\$	480.00
WQUT	Tri-Cities	East	12	\$	480.00
WXSM	Tri-Cities	East	12	\$	480.00
KYTN FM	Union City	West	60	\$	900.00
WENK	Union City	West	14	\$	140.00
WQAK FM	Union City	West	55	\$	825.00
WWKF	Union City	West	15	\$	150.00
<b>TOTALS:</b>			<b>2247</b>	<b>\$</b>	<b>51,523.67</b>

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - September, 2016

Station (s)	City	Region	Units	Total
WATX AM / FM	Algood / Cookeville	Middle	67	\$ 357.33
WSLV	Ardmore	Middle	10	\$ 100.00
WMPS	Bartlett	West	18	\$ 900.00
WBXE FM	Baxter / Cookeville	Middle	54	\$ 397.75
WRKM	Carthage	Middle	25	\$ 200.00
WUCZ FM	Carthage	Middle	18	\$ 146.25
WDEF FM	Chattanooga	East	18	\$ 1,080.00
WDOD FM	Chattanooga	East	18	\$ 1,080.00
WGOW	Chattanooga	East	8	\$ 320.00
WGOW FM	Chattanooga	East	8	\$ 320.00
WKXJ FM	Chattanooga	East	8	\$ 48.00
WLND FM	Chattanooga	East	8	\$ 40.00
WOGT FM	Chattanooga	East	9	\$ 360.00
WRXR FM	Chattanooga	East	8	\$ 88.00
WSKZ FM	Chattanooga	East	2	\$ 80.00
WCVQ FM	Clarksville	Middle	25	\$ 750.00
WCVQ HD 2-SUNNY	Clarksville	Middle	25	\$ 375.00
WKFN	Clarksville	Middle	27	\$ 810.00
WRND FM	Clarksville	Middle	26	\$ 780.00
WVVR FM	Clarksville	Middle	23	\$ 690.00
WZZP FM	Clarksville	Middle	21	\$ 630.00
WUSY FM	Cleveland / Chattanooga	East	8	\$ 520.00
WUSY FM HD2	Cleveland / Chattanooga	East	8	\$ 8.00
WCRV	Collierville / Memphis	West	4	\$ 88.00
WGSQ FM	Cookeville	Middle	7	\$ 315.00
WHUB	Cookeville	Middle	6	\$ 90.00
WKSW FM	Cookeville	Middle	9	\$ 225.00
WPTN AM / FM	Cookeville	Middle	7	\$ 98.00
WKBL	Covington	West	60	\$ 840.00
WKBQ FM	Covington	West	60	\$ 1,440.00
WAEW AM / FM	Crossville	Middle	9	\$ 135.00
WCSV	Crossville	Middle	10	\$ 150.00
WOWF FM	Crossville	Middle	9	\$ 360.00
WPBX	Crossville	Middle	8	\$ 240.00
WDKN AM / FM	Dickson	Middle	252	\$ 3,654.00
WEKR	Fayetteville	Middle	62	\$ 620.00
WYTM FM	Fayetteville	Middle	62	\$ 620.00
WWKF FM	Fulton / Union City	West	8	\$ 80.00
WHIN	Gallatin	Middle	7	\$ 112.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	45	\$ 1,125.00
WDXI	Jackson	West	20	\$ 120.00
WMXX	Jackson	West	20	\$ 120.00
WKPT AM / FM	Kingsport	East	12	\$ 120.00
WRZK FM	Kingsport	East	13	\$ 195.00
WTFM FM	Kingsport	East	15	\$ 705.00
WCYQ FM	Knoxville	East	4	\$ 140.00
WKHT FM	Knoxville	East	4	\$ 120.00
WNOX FM	Knoxville	East	4	\$ 100.00
WWST FM	Knoxville	East	4	\$ 160.00
WBUZ FM	LaVergne / Nashville	Middle	39	\$ 3,900.00

WANT FM	Lebanon	Middle	12	\$	168.00
WZLT	Lexington TN	West	60	\$	540.00
WLIV	Livingston	Middle	17	\$	93.50
WLIV FM	Livingston	Middle	17	\$	153.00
WLQK FM	Livingston	Middle	62	\$	439.67
WCDZ FM	Martin/Dresden	West	51	\$	612.00
WHDM AM / FM	McKenzie	West	20	\$	80.00
WAKI	McMinnville	Middle	10	\$	50.00
WBMC	McMinnville	Middle	9	\$	72.00
WOWC FM	McMinnville	Middle	9	\$	108.00
WTRZ FM	McMinnville	Middle	10	\$	100.00
IDIA AM	Memphis	West	13	\$	130.00
IEGR FM	Memphis	West	13	\$	130.00
IHAL FM	Memphis	West	13	\$	130.00
IHRK FM	Memphis	West	13	\$	130.00
IREC	Memphis	West	13	\$	130.00
KJMS FM	Memphis	West	8	\$	800.00
KWNW FM	Memphis	West	13	\$	845.00
RJMS FM	Memphis	West	12	\$	120.00
RWNW FM	Memphis	West	13	\$	130.00
WDIA	Memphis	West	13	\$	910.00
WEGR FM	Memphis	West	11	\$	880.00
WHAL FM	Memphis	West	13	\$	1,040.00
WHBQ AM	Memphis	West	18	\$	900.00
WHRK FM	Memphis	West	5	\$	500.00
WLOK	Memphis	West	9	\$	405.00
WREC	Memphis	West	13	\$	1,040.00
WKXD FM	Monterey	Middle	49	\$	352.19
WCRK FM	Morristown	East	14	\$	224.00
WMTN	Morristown	East	20	\$	240.00
BRNQ	Nashville	Middle	2	\$	150.00
WCJK FM	Nashville	Middle	8	\$	800.00
WCRT	Nashville	Middle	4	\$	68.00
WECV FM	Nashville	Middle	4	\$	104.00
WJXA FM	Nashville	Middle	19	\$	1,900.00
WLAC	Nashville	Middle	2	\$	150.00
WNRQ FM	Nashville	Middle	2	\$	150.00
WRVW FM	Nashville	Middle	2	\$	150.00
WSIX FM	Nashville	Middle	2	\$	150.00
WSM AM	Nashville	Middle	36	\$	720.00
WUBT FM	Nashville	Middle	2	\$	150.00
WLIK	Newport	East	16	\$	128.00
WAKQ FM	Paris	West	13	\$	52.00
WLZK FM	Paris	West	20	\$	80.00
WMUF FM	Paris	West	20	\$	80.00
WRQR AM / FM	Paris	West	20	\$	80.00
WTPR AM / FM	Paris	West	8	\$	32.00
WBFG	Parkers Crossroads	West	60	\$	600.00
WKSR	Pulaski	Middle	15	\$	180.00
WKWX FM	Savannah	West	90	\$	450.00
WORM	Savannah	West	20	\$	120.00
WORM FM	Savannah/ Clifton	West	20	\$	120.00
WXOQ	Selmer/Bolivar	West	20	\$	120.00
WUUQ FM	South Pittsburg / Chattanooga	East	18	\$	1,080.00
WSMT	Sparta	Middle	10	\$	200.00

WTZX  
WMTY  
WMTY FM  
KYTN FM  
WENK  
WQAK FM  
**TOTALS:**

Sparta  
Sweetwater  
Sweetwater  
Union City  
Union City  
Union City

Middle	9	\$	36.00
East	2	\$	12.00
East	2	\$	12.00
West	59	\$	885.00
West	13	\$	130.00
West	58	\$	870.00
<b>2331</b>		<b>\$</b>	<b>47,163.69</b>

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - October, 2016

Station (s)	City	Region	Units	Total
WATX AM / FM	Algood / Cookeville	Middle	97	\$ 549.67
WSLV	Ardmore	Middle	10	\$ 100.00
WMPS	Bartlett	West	18	\$ 900.00
WBXE FM	Baxter / Cookeville	Middle	57	\$ 703.00
WRKM	Carthage	Middle	7	\$ 56.00
WUCZ FM	Carthage	Middle	5	\$ 45.00
WDEF FM	Chattanooga	East	8	\$ 480.00
WDOD FM	Chattanooga	East	8	\$ 480.00
WGOW	Chattanooga	East	8	\$ 320.00
WGOW FM	Chattanooga	East	8	\$ 320.00
WOGT FM	Chattanooga	East	9	\$ 360.00
WSKZ FM	Chattanooga	East	5	\$ 200.00
WCVQ FM	Clarksville	Middle	32	\$ 960.00
WCVQ HD 2-SUNNY	Clarksville	Middle	37	\$ 555.00
WKFN	Clarksville	Middle	32	\$ 960.00
WRND FM	Clarksville	Middle	33	\$ 990.00
WVVR FM	Clarksville	Middle	31	\$ 930.00
WZZP FM	Clarksville	Middle	28	\$ 840.00
WYSH AM	Clinton	East	31	\$ 310.00
WCRV	Collierville / Memphis	West	5	\$ 110.00
WKOM FM	Columbia	Middle	30	\$ 247.50
WKRM	Columbia	Middle	30	\$ 232.50
WGSQ FM	Cookeville	Middle	8	\$ 360.00
WHUB	Cookeville	Middle	3	\$ 45.00
WKSW FM	Cookeville	Middle	3	\$ 75.00
WPTN AM / FM	Cookeville	Middle	6	\$ 84.00
WKBL	Covington	West	62	\$ 868.00
WKBQ FM	Covington	West	62	\$ 1,550.00
WAEW AM / FM	Crossville	Middle	10	\$ 150.00
WCSV	Crossville	Middle	10	\$ 150.00
WOWF FM	Crossville	Middle	10	\$ 400.00
WPBX	Crossville	Middle	9	\$ 270.00
WEKR	Fayetteville	Middle	60	\$ 600.00
WYTM FM	Fayetteville	Middle	60	\$ 600.00
WWKF FM	Fulton / Union City	West	15	\$ 150.00
WHIN	Gallatin	Middle	7	\$ 112.00
WMRO	Gallatin	Middle	7	\$ 49.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	11	\$ 275.00
WMYL FM	Halls Crossroads	East	31	\$ 775.00
WDXI	Jackson	West	20	\$ 120.00
WMXX	Jackson	West	20	\$ 120.00
WKPT AM / FM	Kingsport	East	15	\$ 150.00
WRZK FM	Kingsport	East	16	\$ 240.00
WTFM FM	Kingsport	East	15	\$ 705.00
WCYQ FM	Knoxville	East	4	\$ 140.00
WKHT FM	Knoxville	East	4	\$ 120.00
WNOX FM	Knoxville	East	4	\$ 100.00
WWST FM	Knoxville	East	4	\$ 160.00
WBUZ FM	LaVergne / Nashville	Middle	10	\$ 1,000.00
WBUZ FM-D3	LaVergne / Nashville	Middle	9	\$ 225.00

WANT FM	Lebanon	Middle	14	\$	196.00
WJJM	Lewisburg	Middle	30	\$	265.50
WJJM FM	Lewisburg	Middle	30	\$	199.50
WZLT	Lexington TN	West	60	\$	540.00
WLIV	Livingston	Middle	11	\$	60.50
WLIV FM	Livingston	Middle	11	\$	99.00
WLQK FM	Livingston	Middle	61	\$	752.33
WCMT	Martin	West	45	\$	540.00
WCMT FM	Martin	West	56	\$	672.00
WCDZ FM	Martin/Dresden	West	54	\$	648.00
WHDM AM / FM	McKenzie	West	23	\$	92.00
WTPR FM	McKinnon	West	10	\$	40.00
WAKI	McMinnville	Middle	10	\$	50.00
WBMC	McMinnville	Middle	10	\$	80.00
WOWC FM	McMinnville	Middle	10	\$	120.00
WTRZ FM	McMinnville	Middle	10	\$	100.00
IDIA AM	Memphis	West	15	\$	150.00
IEGR FM	Memphis	West	15	\$	150.00
IHAL FM	Memphis	West	15	\$	150.00
IHRK FM	Memphis	West	15	\$	150.00
IREC	Memphis	West	12	\$	120.00
KJMS FM	Memphis	West	12	\$	1,200.00
KWNW FM	Memphis	West	15	\$	975.00
RJMS FM	Memphis	West	12	\$	120.00
RWNW FM	Memphis	West	15	\$	150.00
WDIA	Memphis	West	14	\$	980.00
WEGR FM	Memphis	West	13	\$	1,040.00
WHAL FM	Memphis	West	14	\$	1,120.00
WHBQ AM	Memphis	West	18	\$	900.00
WHRK FM	Memphis	West	11	\$	1,100.00
WLOK	Memphis	West	12	\$	540.00
WREC	Memphis	West	15	\$	1,200.00
WKXD FM	Monterey	Middle	55	\$	678.33
WCRK FM	Morristown	East	10	\$	160.00
WMTN	Morristown	East	17	\$	204.00
BRNQ	Nashville	Middle	4	\$	300.00
WCJK FM	Nashville	Middle	14	\$	1,400.00
WCRT	Nashville	Middle	5	\$	85.00
WECV FM	Nashville	Middle	5	\$	130.00
WJXA FM	Nashville	Middle	18	\$	1,800.00
WLAC	Nashville	Middle	4	\$	300.00
WNRQ FM	Nashville	Middle	4	\$	300.00
WRVW FM	Nashville	Middle	4	\$	300.00
WSIX FM	Nashville	Middle	4	\$	300.00
WUBT FM	Nashville	Middle	4	\$	300.00
WLIK	Newport	East	16	\$	128.00
WAKQ FM	Paris	West	10	\$	40.00
WLZK FM	Paris	West	21	\$	84.00
WMUF FM	Paris	West	24	\$	96.00
WRQR AM / FM	Paris	West	23	\$	92.00
WBFQ	Parkers Crossroads	West	60	\$	600.00
WPRT FM	Peagram / Nashville	Middle	10	\$	1,000.00
WPRT FM-D2	Peagram / Nashville	Middle	22	\$	550.00
WKSR	Pulaski	Middle	10	\$	100.00
WKWX FM	Savannah	West	90	\$	450.00

WORM	Savannah	West	20	\$	120.00
WORM FM	Savannah/ Clifton	West	20	\$	120.00
WXOQ	Selmer/Bolivar	West	20	\$	120.00
WUUQ FM	South Pittsburg / Chattanooga	East	8	\$	480.00
WMTY	Sweetwater	East	10	\$	60.00
WMTY FM	Sweetwater	East	10	\$	60.00
WGOC	Tri-Cities	East	17	\$	680.00
WJCW	Tri-Cities	East	17	\$	680.00
WKOS	Tri-Cities	East	17	\$	680.00
WQUT	Tri-Cities	East	16	\$	640.00
WXSM	Tri-Cities	East	17	\$	680.00
KYTN FM	Union City	West	62	\$	930.00
WENK	Union City	West	16	\$	160.00
WQAK FM	Union City	West	61	\$	915.00
<b>TOTALS:</b>			<b>2437</b>	<b>\$</b>	<b>50,463.84</b>

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - November, 2015

Station (s)	City	Region	Units	Total
WATX AM / FM	Algood / Cookeville	Middle	52	\$ 367.64
WSLV	Ardmore	Middle	10	\$ 100.00
WMPS	Bartlett	West	24	\$ 1,200.00
WBXE FM	Baxter / Cookeville	Middle	16	\$ 113.12
WRKM	Carthage	Middle	18	\$ 131.00
WUCZ FM	Carthage	Middle	18	\$ 131.00
WDEF	Chattanooga	East	6	\$ 210.00
WDEF FM	Chattanooga	East	6	\$ 240.00
WDOD FM	Chattanooga	East	6	\$ 210.00
WCVQ FM	Clarksville	Middle	46	\$ 1,380.00
WCVQ HD 2	Clarksville	Middle	49	\$ 735.00
WKFN	Clarksville	Middle	55	\$ 1,650.00
WRND FM	Clarksville	Middle	55	\$ 1,650.00
WVVR FM	Clarksville	Middle	46	\$ 1,380.00
WZZP FM	Clarksville	Middle	52	\$ 1,560.00
WKOM FM	Columbia	Middle	30	\$ 247.50
WKRM	Columbia	Middle	30	\$ 232.50
WGSQ FM	Cookeville	Middle	8	\$ 360.00
WHUB	Cookeville	Middle	8	\$ 120.00
WKSX FM	Cookeville	Middle	8	\$ 200.00
WPTN AM / FM	Cookeville	Middle	7	\$ 98.00
WKBL	Covington	West	60	\$ 720.00
WKBQ FM	Covington	West	60	\$ 1,500.00
WAEW AM / FM	Crossville	Middle	13	\$ 195.00
WCSV	Crossville	Middle	13	\$ 195.00
WOWF FM	Crossville	Middle	11	\$ 440.00
WPBX	Crossville	Middle	12	\$ 360.00
WCDZ FM	Dresden	West	46	\$ 552.00
WHIN	Gallatin	Middle	9	\$ 144.00
WLFP-FM	Germantown	West	41	\$ 410.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	17	\$ 170.00
WKPT AM / FM	Kingsport	East	28	\$ 280.00
WRZK FM	Kingsport	East	24	\$ 360.00
WTFM FM	Kingsport	East	23	\$ 1,265.00
WCYQ FM	Knoxville	East	11	\$ 385.00
WKHT FM	Knoxville	East	11	\$ 330.00
WNOX FM	Knoxville	East	11	\$ 275.00
WWST FM	Knoxville	East	11	\$ 440.00
WBUZ FM	LaVergne / Nashville	Middle	7	\$ 700.00
WANT FM	Lebanon	Middle	14	\$ 196.00
WLQK FM	Livingston	Middle	22	\$ 155.54
WCDZ FM	Martin	West	27	\$ 324.00
WCMT	Martin	West	29	\$ 348.00
WAKI	McMinnville	Middle	13	\$ 65.00
WBMC	McMinnville	Middle	13	\$ 104.00
WOWC FM	McMinnville	Middle	13	\$ 156.00
WTRZ FM	McMinnville	Middle	13	\$ 130.00
IDIA AM	Memphis	West	16	\$ 160.00
IEGR FM	Memphis	West	16	\$ 160.00
IHAL FM	Memphis	West	15	\$ 150.00

IHRK FM	Memphis	West	16	\$	160.00
IREC	Memphis	West	70	\$	700.00
KJMS FM	Memphis	West	7	\$	700.00
KWNW FM	Memphis	West	14	\$	910.00
RJMS FM	Memphis	West	15	\$	150.00
RWNW FM	Memphis	West	16	\$	160.00
WDIA	Memphis	West	15	\$	1,050.00
WEGR FM	Memphis	West	14	\$	1,120.00
WHAL FM	Memphis	West	14	\$	1,120.00
WHBQ AM	Memphis	West	24	\$	1,200.00
WHRK FM	Memphis	West	10	\$	1,000.00
WLFP	Memphis	West	51	\$	510.00
WLOK	Memphis	West	19	\$	830.00
WMC	Memphis	West	33	\$	330.00
WMC FM	Memphis	West	40	\$	400.00
WMFS	Memphis	West	17	\$	170.00
WREC	Memphis	West	16	\$	1,280.00
WRVR FM	Memphis	West	46	\$	460.00
WKXD FM	Monterey	Middle	23	\$	162.61
WCRK FM	Morristown	East	97	\$	1,552.00
WMTN	Morristown	East	88	\$	1,056.00
BNRQ	Nashville	Middle	4	\$	40.00
WCJK FM	Nashville	Middle	3	\$	300.00
WCRT	Nashville	Middle	3	\$	51.00
WCRV	Nashville	Middle	4	\$	88.00
WECV FM	Nashville	Middle	4	\$	104.00
WJXA FM	Nashville	Middle	21	\$	3,150.00
WLAC	Nashville	Middle	5	\$	375.00
WNRQ FM	Nashville	Middle	5	\$	375.00
WRVW FM	Nashville	Middle	4	\$	300.00
WSIX FM	Nashville	Middle	4	\$	300.00
WUBT FM	Nashville	Middle	4	\$	300.00
WPRT FM	Peagram / Nashville	Middle	12	\$	1,200.00
WPRT FM-D2	Peagram / Nashville	Middle	28	\$	700.00
WUUQ FM	South Pittsburg / Chattanooga	East	6	\$	210.00
WSMT	Sparta	Middle	13	\$	260.00
WTZX	Sparta	Middle	13	\$	52.00
KYTN FM	Union City	West	50	\$	750.00
WENK	Union City	West	25	\$	212.00
WQAK FM	Union City	West	25	\$	375.00
WWKF	Union City	West	29	\$	284.00
<b>TOTALS:</b>			<b>2056</b>	<b>\$</b>	<b>47,431.91</b>

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - December, 2016

Station (s)	City	Region	Units	Total
WATX AM / FM	Algood / Cookeville	Middle	51	\$ 237.60
WMPS	Bartlett	West	12	\$ 600.00
WBXE FM	Baxter / Cookeville	Middle	29	\$ 209.21
WDEF FM	Chattanooga	East	16	\$ 960.00
WDOD FM	Chattanooga	East	16	\$ 960.00
WGOW	Chattanooga	East	2	\$ 80.00
WGOW FM	Chattanooga	East	6	\$ 240.00
WKXJ FM	Chattanooga	East	5	\$ 30.00
WLND FM	Chattanooga	East	5	\$ 25.00
WOGT FM	Chattanooga	East	8	\$ 320.00
WRXR FM	Chattanooga	East	5	\$ 55.00
WSKZ FM	Chattanooga	East	5	\$ 200.00
WCVQ FM	Clarksville	Middle	28	\$ 840.00
WCVQ HD 2-SUNNY	Clarksville	Middle	28	\$ 420.00
WKFN	Clarksville	Middle	27	\$ 810.00
WRND FM	Clarksville	Middle	24	\$ 720.00
WVVR FM	Clarksville	Middle	28	\$ 840.00
WZZP FM	Clarksville	Middle	26	\$ 780.00
WUSY FM	Cleveland / Chattanooga	East	5	\$ 325.00
WUSY FM HD2	Cleveland / Chattanooga	East	5	\$ 5.00
WCRV	Collierville / Memphis	West	3	\$ 66.00
WGSQ FM	Cookeville	Middle	4	\$ 180.00
WHUB	Cookeville	Middle	5	\$ 75.00
WKSW FM	Cookeville	Middle	3	\$ 75.00
WPTN AM / FM	Cookeville	Middle	4	\$ 56.00
WKBL	Covington	West	62	\$ 930.00
WKBQ FM	Covington	West	62	\$ 1,550.00
WAEW AM / FM	Crossville	Middle	7	\$ 105.00
WCSV	Crossville	Middle	7	\$ 105.00
WOWF FM	Crossville	Middle	6	\$ 240.00
WPBX	Crossville	Middle	5	\$ 150.00
WEKR	Fayetteville	Middle	62	\$ 620.00
WYTM FM	Fayetteville	Middle	62	\$ 620.00
WRLT FM	Franklin / Nashville	Middle	39	\$ 682.50
WHIN	Gallatin	Middle	5	\$ 80.00
WMRO	Gallatin	Middle	7	\$ 49.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	18	\$ 450.00
WDXI	Jackson	West	20	\$ 120.00
WMXX	Jackson	West	20	\$ 120.00
WKPT AM / FM	Kingsport	East	15	\$ 150.00
WRZK FM	Kingsport	East	13	\$ 195.00
WTFM FM	Kingsport	East	13	\$ 611.00
WCYQ FM	Knoxville	East	3	\$ 105.00
WKHT FM	Knoxville	East	3	\$ 90.00
WNOX FM	Knoxville	East	3	\$ 75.00
WWST FM	Knoxville	East	3	\$ 120.00
WBUZ FM	LaVergne / Nashville	Middle	18	\$ 1,800.00
WBUZ FM-D3	LaVergne / Nashville	Middle	18	\$ 450.00
WANT FM	Lebanon	Middle	10	\$ 140.00
WZLT	Lexington TN	West	60	\$ 540.00

WLIV	Livingston	Middle	11	\$	60.50
WLIV FM	Livingston	Middle	11	\$	99.00
WLQK FM	Livingston	Middle	26	\$	186.31
WCMT	Martin	West	81	\$	972.00
WCMT FM	Martin	West	63	\$	756.00
WCDZ FM	Martin/Dresden	West	36	\$	432.00
WHDM AM / FM	McKenzie	West	29	\$	116.00
WAKI	McMinnville	Middle	7	\$	35.00
WBMC	McMinnville	Middle	7	\$	56.00
WOWC FM	McMinnville	Middle	7	\$	84.00
WTRZ FM	McMinnville	Middle	7	\$	70.00
IDIA AM	Memphis	West	10	\$	100.00
IEGR FM	Memphis	West	10	\$	100.00
IHAL FM	Memphis	West	10	\$	100.00
IHRK FM	Memphis	West	10	\$	100.00
IREC	Memphis	West	9	\$	90.00
KJMS FM	Memphis	West	5	\$	500.00
KWNW FM	Memphis	West	7	\$	455.00
RJMS FM	Memphis	West	10	\$	100.00
RWNW FM	Memphis	West	10	\$	100.00
WDIA	Memphis	West	7	\$	490.00
WEGR FM	Memphis	West	8	\$	640.00
WHAL FM	Memphis	West	9	\$	720.00
WHBQ AM	Memphis	West	12	\$	600.00
WHRK FM	Memphis	West	1	\$	100.00
WLOK	Memphis	West	6	\$	270.00
WREC	Memphis	West	10	\$	800.00
WKXD FM	Monterey	Middle	29	\$	196.78
WCRK FM	Morristown	East	9	\$	144.00
WMTN	Morristown	East	20	\$	240.00
BRNQ	Nashville	Middle	2	\$	150.00
WCJK FM	Nashville	Middle	4	\$	400.00
WCRT	Nashville	Middle	3	\$	51.00
WECV FM	Nashville	Middle	3	\$	78.00
WGFX FM	Nashville	Middle	1	\$	75.00
WGFX-D	Nashville	Middle	48	\$	960.00
WJXA FM	Nashville	Middle	10	\$	1,500.00
WKDF FM	Nashville	Middle	3	\$	450.00
WKDF-D	Nashville	Middle	54	\$	1,080.00
WLAC	Nashville	Middle	2	\$	150.00
WNRQ FM	Nashville	Middle	2	\$	150.00
WQQK-D	Nashville	Middle	27	\$	540.00
WRVW FM	Nashville	Middle	2	\$	150.00
WSIX FM	Nashville	Middle	2	\$	150.00
WSM AM	Nashville	Middle	1	\$	20.00
WSM-D	Nashville	Middle	51	\$	1,020.00
WUBT FM	Nashville	Middle	2	\$	150.00
WWTN FM	Nashville	Middle	2	\$	40.00
WWTN-D	Nashville	Middle	44	\$	880.00
WLIK	Newport	East	10	\$	80.00
WAKQ FM	Paris	West	5	\$	20.00
WLZK FM	Paris	West	29	\$	116.00
WMUF FM	Paris	West	29	\$	116.00
WRQR AM / FM	Paris	West	29	\$	116.00
WTPR AM / FM	Paris	West	7	\$	28.00

WBFG	Parkers Crossroads	West	60	\$	600.00
WPRT FM	Peagram / Nashville	Middle	18	\$	1,800.00
WPRT FM-D2	Peagram / Nashville	Middle	37	\$	925.00
WKSR	Pulaski	Middle	15	\$	180.00
WKWX FM	Savannah	West	90	\$	450.00
WORM	Savannah	West	20	\$	120.00
WORM FM	Savannah/ Clifton	West	20	\$	120.00
WXOQ	Selmer/Bolivar	West	20	\$	120.00
WUUQ FM	South Pittsburg / Chattanooga	East	16	\$	960.00
WSMT	Sparta	Middle	7	\$	140.00
WTZX	Sparta	Middle	7	\$	28.00
WGOC	Tri-Cities	East	6	\$	240.00
WJCW	Tri-Cities	East	6	\$	240.00
WKOS	Tri-Cities	East	6	\$	240.00
WQUT	Tri-Cities	East	6	\$	240.00
WXSM	Tri-Cities	East	6	\$	240.00
KYTN FM	Union City	West	61	\$	915.00
WENK	Union City	West	5	\$	50.00
WQAK FM	Union City	West	53	\$	795.00
WWKF	Union City	West	9	\$	90.00
<b>TOTALS:</b>			<b>2208</b>	<b>\$</b>	<b>44,881.90</b>

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - January, 2017

Station (s)	City	Region	Units	Total
WATX AM / FM	Algood / Cookeville	Middle	46	\$ 195.71
WSLV	Ardmore	Middle	15	\$ 150.00
WMPS	Bartlett	West	12	\$ 600.00
WBXE FM	Baxter / Cookeville	Middle	101	\$ 953.69
WMOD FM	Bolivar	West	40	\$ 300.00
WRKM	Carthage	Middle	6	\$ 43.50
WUCZ FM	Carthage	Middle	8	\$ 66.00
WDEF FM	Chattanooga	East	7	\$ 420.00
WDOD FM	Chattanooga	East	7	\$ 420.00
WGOW	Chattanooga	East	8	\$ 320.00
WGOW FM	Chattanooga	East	8	\$ 320.00
WKXJ FM	Chattanooga	East	6	\$ 36.00
WLND FM	Chattanooga	East	6	\$ 30.00
WOGT FM	Chattanooga	East	9	\$ 360.00
WRXR FM	Chattanooga	East	6	\$ 66.00
WSKZ FM	Chattanooga	East	6	\$ 240.00
WUSY FM	Cleveland / Chattanooga	East	6	\$ 390.00
WUSY FM HD2	Cleveland / Chattanooga	East	6	\$ 6.00
WCRV	Collierville / Memphis	West	3	\$ 66.00
WGSQ FM	Cookeville	Middle	6	\$ 270.00
WHUB	Cookeville	Middle	7	\$ 105.00
WKSX FM	Cookeville	Middle	2	\$ 50.00
WPTN AM / FM	Cookeville	Middle	4	\$ 56.00
WKBL	Covington	West	62	\$ 1,550.00
WKBQ FM	Covington	West	62	\$ 1,550.00
WAEW AM / FM	Crossville	Middle	7	\$ 105.00
WCSV	Crossville	Middle	6	\$ 90.00
WOWF FM	Crossville	Middle	6	\$ 240.00
WPBX	Crossville	Middle	6	\$ 180.00
WEKR	Fayetteville	Middle	20	\$ 200.00
WYTM FM	Fayetteville	Middle	20	\$ 200.00
WHIN	Gallatin	Middle	5	\$ 80.00
WMRO	Gallatin	Middle	20	\$ 140.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	18	\$ 450.00
WDXI	Jackson	West	20	\$ 120.00
WMXX	Jackson	West	20	\$ 120.00
WKPT AM / FM	Kingsport	East	22	\$ 220.00
WRZK FM	Kingsport	East	14	\$ 210.00
WTFM FM	Kingsport	East	17	\$ 765.00
WCYQ FM	Knoxville	East	1	\$ 35.00
WKHT FM	Knoxville	East	1	\$ 30.00
WNOX FM	Knoxville	East	1	\$ 25.00
WWST FM	Knoxville	East	1	\$ 40.00
WBUZ FM	LaVergne / Nashville	Middle	18	\$ 1,800.00
WBUZ FM-D3	LaVergne / Nashville	Middle	18	\$ 450.00
WANT FM	Lebanon	Middle	10	\$ 140.00
WJJM	Lewisburg	Middle	10	\$ 88.50
WJJM FM	Lewisburg	Middle	10	\$ 66.50
WZLT	Lexington TN	West	60	\$ 540.00
WLIV	Livingston	Middle	11	\$ 60.50

WLIV FM	Livingston	Middle	11	\$	99.00
WLQK FM	Livingston	Middle	91	\$	846.93
WCMT	Martin	West	102	\$	1,224.00
WCMT FM	Martin	West	109	\$	1,308.00
WCDZ FM	Martin/Dresden	West	50	\$	600.00
WHDM AM / FM	McKenzie	West	28	\$	112.00
WAKI	McMinnville	Middle	6	\$	30.00
WBMC	McMinnville	Middle	7	\$	56.00
WOWC FM	McMinnville	Middle	7	\$	84.00
WTRZ FM	McMinnville	Middle	6	\$	60.00
IDIA AM	Memphis	West	10	\$	100.00
IEGR FM	Memphis	West	10	\$	100.00
IHAL FM	Memphis	West	10	\$	100.00
IHRK FM	Memphis	West	10	\$	100.00
IREC	Memphis	West	9	\$	90.00
KJMS FM	Memphis	West	8	\$	800.00
KWNW FM	Memphis	West	11	\$	715.00
RJMS FM	Memphis	West	9	\$	90.00
RWNW FM	Memphis	West	10	\$	100.00
WDIA	Memphis	West	9	\$	630.00
WEGR FM	Memphis	West	10	\$	800.00
WHAL FM	Memphis	West	11	\$	880.00
WHBQ AM	Memphis	West	12	\$	600.00
WHRK FM	Memphis	West	8	\$	800.00
WLOK	Memphis	West	6	\$	270.00
WREC	Memphis	West	10	\$	800.00
WKXD FM	Monterey	Middle	81	\$	742.02
WCRK FM	Morristown	East	8	\$	128.00
WMTN	Morristown	East	23	\$	276.00
BRNQ	Nashville	Middle	2	\$	150.00
WCJK FM	Nashville	Middle	9	\$	900.00
WCRT	Nashville	Middle	3	\$	39.00
WECV FM	Nashville	Middle	2	\$	38.00
WGFX FM	Nashville	Middle	49	\$	3,675.00
WJXA FM	Nashville	Middle	10	\$	1,500.00
WKDF FM	Nashville	Middle	52	\$	7,800.00
WLAC	Nashville	Middle	2	\$	150.00
WNRQ FM	Nashville	Middle	2	\$	150.00
WQQK FM	Nashville	Middle	27	\$	540.00
WRVW FM	Nashville	Middle	2	\$	150.00
WSIX FM	Nashville	Middle	2	\$	150.00
WSM AM	Nashville	Middle	53	\$	1,060.00
WUBT FM	Nashville	Middle	2	\$	150.00
WWTN FM	Nashville	Middle	44	\$	880.00
WLIK	Newport	East	11	\$	88.00
WAKQ FM	Paris	West	8	\$	32.00
WLZK FM	Paris	West	28	\$	112.00
WMUF FM	Paris	West	28	\$	112.00
WRQR AM / FM	Paris	West	28	\$	112.00
WTPR AM / FM	Paris	West	5	\$	20.00
WBFQ	Parkers Crossroads	West	60	\$	600.00
WPRT FM	Peagram / Nashville	Middle	18	\$	1,800.00
WPRT FM-D2	Peagram / Nashville	Middle	18	\$	450.00
WKWX FM	Savannah	West	90	\$	450.00
WORM	Savannah	West	20	\$	120.00

WORM FM	Savannah/ Clifton	West	20	\$	120.00
WXOQ	Selmer/Bolivar	West	20	\$	120.00
WUUQ FM	South Pittsburg / Chattanooga	East	7	\$	420.00
WSMT	Sparta	Middle	6	\$	120.00
WTZX	Sparta	Middle	7	\$	28.00
WJCW	Tri-Cities	East	2	\$	80.00
WQUT	Tri-Cities	East	2	\$	80.00
WXSM	Tri-Cities	East	3	\$	120.00
KYTN FM	Union City	West	62	\$	930.00
WENK	Union City	West	12	\$	120.00
WQAK FM	Union City	West	61	\$	915.00
WWKF	Union City	West	9	\$	90.00
<b>TOTALS:</b>			<b>2259</b>	<b>\$</b>	<b>51,871.35</b>

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - February, 2017

Station (s)	City	Region	Units	Total
WUCT	Algood / Cookeville	Middle	19	\$ 97.91
WSLV	Ardmore	Middle	15	\$ 150.00
WMPS	Bartlett	West	12	\$ 600.00
WBXE FM	Baxter / Cookeville	Middle	75	\$ 620.16
WMOD FM	Bolivar	West	45	\$ 337.50
WRKM	Carthage	Middle	25	\$ 196.50
WUCZ FM	Carthage	Middle	23	\$ 222.50
WDEF FM	Chattanooga	East	7	\$ 465.00
WDOD FM	Chattanooga	East	7	\$ 465.00
WKXJ FM	Chattanooga	East	5	\$ 30.00
WLND FM	Chattanooga	East	5	\$ 25.00
WRXR FM	Chattanooga	East	5	\$ 55.00
WUSY FM	Cleveland / Chattanooga	East	5	\$ 325.00
WUSY FM HD2	Cleveland / Chattanooga	East	5	\$ 5.00
WYSH AM	Clinton	East	28	\$ 280.00
WCRV	Collierville / Memphis	West	3	\$ 66.00
WGSQ FM	Cookeville	Middle	3	\$ 135.00
WHUB	Cookeville	Middle	2	\$ 30.00
WKSX FM	Cookeville	Middle	5	\$ 125.00
WPTN AM / FM	Cookeville	Middle	5	\$ 70.00
WKBL	Covington	West	56	\$ 840.00
WKBQ FM	Covington	West	56	\$ 1,400.00
WAEW AM / FM	Crossville	Middle	6	\$ 90.00
WCSV	Crossville	Middle	6	\$ 90.00
WOWF FM	Crossville	Middle	5	\$ 200.00
WPBX	Crossville	Middle	5	\$ 150.00
WDKN AM / FM	Dickson	Middle	83	\$ 1,203.50
WEKR	Fayetteville	Middle	56	\$ 560.00
WYTM FM	Fayetteville	Middle	56	\$ 560.00
WRLT FM	Franklin / Nashville	Middle	33	\$ 577.50
WHIN	Gallatin	Middle	4	\$ 64.00
WMRO	Gallatin	Middle	7	\$ 49.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	28	\$ 700.00
WMYL FM	Halls Crossroads	East	28	\$ 700.00
WDXI	Jackson	West	20	\$ 120.00
WMXX	Jackson	West	20	\$ 120.00
WKPT AM / FM	Kingsport	East	11	\$ 110.00
WRZK FM	Kingsport	East	15	\$ 225.00
WTFM FM	Kingsport	East	14	\$ 630.00
WCYQ FM	Knoxville	East	3	\$ 105.00
WKHT FM	Knoxville	East	3	\$ 90.00
WNOX FM	Knoxville	East	3	\$ 75.00
WWST FM	Knoxville	East	3	\$ 120.00
WBUZ FM	LaVergne / Nashville	Middle	28	\$ 2,800.00
WBUZ FM-D3	LaVergne / Nashville	Middle	28	\$ 700.00
WANT FM	Lebanon	Middle	9	\$ 126.00
WLIL	Lenoir City	East	19	\$ 152.00
WZLT	Lexington TN	West	60	\$ 540.00
WLIV	Livingston	Middle	10	\$ 55.00
WLIV FM	Livingston	Middle	10	\$ 90.00

WLQK FM	Livingston	Middle	75	\$	669.34
WCMT	Martin	West	34	\$	408.00
WCMT FM	Martin	West	34	\$	408.00
WCDZ FM	Martin/Dresden	West	76	\$	912.00
WHDM AM / FM	McKenzie	West	14	\$	56.00
WAKI	McMinnville	Middle	6	\$	30.00
WBMC	McMinnville	Middle	6	\$	48.00
WOWC FM	McMinnville	Middle	6	\$	72.00
WTRZ FM	McMinnville	Middle	6	\$	60.00
IDIA AM	Memphis	West	9	\$	90.00
IEGR FM	Memphis	West	8	\$	80.00
IHAL FM	Memphis	West	9	\$	90.00
IHRK FM	Memphis	West	9	\$	90.00
IREC	Memphis	West	9	\$	90.00
KJMS FM	Memphis	West	4	\$	400.00
KWNW FM	Memphis	West	9	\$	585.00
RJMS FM	Memphis	West	9	\$	90.00
RWNW FM	Memphis	West	9	\$	90.00
WDIA	Memphis	West	9	\$	630.00
WEGR FM	Memphis	West	8	\$	640.00
WHAL FM	Memphis	West	8	\$	640.00
WHBQ AM	Memphis	West	12	\$	600.00
WHRK FM	Memphis	West	6	\$	600.00
WLOK	Memphis	West	6	\$	270.00
WREC	Memphis	West	9	\$	720.00
WKXD FM	Monterey	Middle	72	\$	642.12
WCRK FM	Morristown	East	7	\$	112.00
WMTN	Morristown	East	12	\$	144.00
BRNQ	Nashville	Middle	2	\$	150.00
WCJK FM	Nashville	Middle	6	\$	600.00
WCRT	Nashville	Middle	3	\$	39.00
WECV FM	Nashville	Middle	3	\$	57.00
WGFX FM	Nashville	Middle	11	\$	825.00
WJXA FM	Nashville	Middle	10	\$	1,500.00
WKDF FM	Nashville	Middle	12	\$	1,800.00
WLAC	Nashville	Middle	2	\$	150.00
WNRQ FM	Nashville	Middle	3	\$	225.00
WQQK FM	Nashville	Middle	6	\$	120.00
WRVW FM	Nashville	Middle	2	\$	150.00
WSIX FM	Nashville	Middle	3	\$	225.00
WSM AM	Nashville	Middle	12	\$	240.00
WUBT FM	Nashville	Middle	3	\$	225.00
WWTN FM	Nashville	Middle	10	\$	200.00
WLIK	Newport	East	10	\$	80.00
WAKQ FM	Paris	West	7	\$	28.00
WLZK FM	Paris	West	14	\$	56.00
WMUF FM	Paris	West	14	\$	56.00
WRQR AM / FM	Paris	West	14	\$	56.00
WTPR AM / FM	Paris	West	8	\$	32.00
WBFQ	Parkers Crossroads	West	60	\$	600.00
WPRT FM	Peagram / Nashville	Middle	27	\$	2,700.00
WPRT FM-D2	Peagram / Nashville	Middle	28	\$	700.00
WKWX FM	Savannah	West	90	\$	450.00
WORM	Savannah	West	20	\$	120.00
WORM FM	Savannah/ Clifton	West	20	\$	120.00

WXOQ	Selmer/Bolivar	West	20	\$	120.00
WUUQ FM	South Pittsburg / Chattanooga	East	7	\$	465.00
WSMT	Sparta	Middle	6	\$	120.00
WTZX	Sparta	Middle	6	\$	24.00
KYTN FM	Union City	West	56	\$	840.00
WENK	Union City	West	5	\$	50.00
WQAK FM	Union City	West	50	\$	750.00
WWKF	Union City	West	6	\$	60.00
<b>TOTALS:</b>			<b>2021</b>	<b>\$</b>	<b>40,742.03</b>

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - March, 2017

Station (s)	City	Region	Units	Total
WUCT	Algood / Cookeville	Middle	3	\$ 12.00
WSLV	Ardmore	Middle	10	\$ 100.00
WMPS	Bartlett	West	12	\$ 600.00
WBXE FM	Baxter / Cookeville	Middle	96	\$ 899.38
WMOD FM	Bolivar	West	45	\$ 281.25
WRKM	Carthage	Middle	29	\$ 226.75
WUCZ FM	Carthage	Middle	25	\$ 242.50
WDEF FM	Chattanooga	East	9	\$ 597.86
WDOD FM	Chattanooga	East	8	\$ 531.43
WKXJ FM	Chattanooga	East	6	\$ 36.00
WLND FM	Chattanooga	East	6	\$ 30.00
WRXR FM	Chattanooga	East	6	\$ 66.00
OTLW HD	Clarksville	Middle	57	\$ 855.00
WCVQ FM	Clarksville	Middle	49	\$ 1,470.00
WCVQ HD 2-SUNNY	Clarksville	Middle	54	\$ 810.00
WKFN	Clarksville	Middle	48	\$ 1,440.00
WRND FM	Clarksville	Middle	56	\$ 1,680.00
WVVR FM	Clarksville	Middle	56	\$ 1,680.00
WZZP FM	Clarksville	Middle	46	\$ 1,380.00
WUSY FM	Cleveland / Chattanooga	East	6	\$ 390.00
WUSY FM HD2	Cleveland / Chattanooga	East	6	\$ 6.00
WYSH AM	Clinton	East	31	\$ 310.00
WCRV	Collierville / Memphis	West	3	\$ 66.00
WGSQ FM	Cookeville	Middle	4	\$ 180.00
WHUB	Cookeville	Middle	6	\$ 90.00
WKSW FM	Cookeville	Middle	4	\$ 100.00
WPTN AM / FM	Cookeville	Middle	2	\$ 28.00
WKBL	Covington	West	62	\$ 930.00
WKBQ FM	Covington	West	62	\$ 1,550.00
WAEW AM / FM	Crossville	Middle	7	\$ 105.00
WCSV	Crossville	Middle	7	\$ 105.00
WOWF FM	Crossville	Middle	6	\$ 240.00
WPBX	Crossville	Middle	6	\$ 180.00
WEKR	Fayetteville	Middle	20	\$ 200.00
WYTM FM	Fayetteville	Middle	20	\$ 200.00
WRLT FM	Franklin / Nashville	Middle	39	\$ 682.50
WHIN	Gallatin	Middle	5	\$ 80.00
WMRO	Gallatin	Middle	7	\$ 49.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	16	\$ 400.00
WMYL FM	Halls Crossroads	East	31	\$ 775.00
WDXI	Jackson	West	20	\$ 120.00
WMXX	Jackson	West	20	\$ 120.00
WKPT AM / FM	Kingsport	East	10	\$ 100.00
WRZK FM	Kingsport	East	19	\$ 285.00
WTFM FM	Kingsport	East	13	\$ 585.00
WCYQ FM	Knoxville	East	2	\$ 70.00
WKHT FM	Knoxville	East	2	\$ 60.00
WNOX FM	Knoxville	East	2	\$ 50.00
WWST FM	Knoxville	East	2	\$ 80.00
WBUZ FM	LaVergne / Nashville	Middle	18	\$ 1,800.00

WBUZ FM-D3	LaVergne / Nashville	Middle	18	\$	450.00
WANT FM	Lebanon	Middle	10	\$	140.00
WZLT	Lexington TN	West	60	\$	540.00
WLIV	Livingston	Middle	12	\$	66.00
WLIV FM	Livingston	Middle	12	\$	108.00
WLQK FM	Livingston	Middle	82	\$	712.35
WCMT	Martin	West	24	\$	288.00
WCMT FM	Martin	West	52	\$	624.00
WCDZ FM	Martin/Dresden	West	37	\$	444.00
WHDM AM / FM	McKenzie	West	31	\$	124.00
WAKI	McMinnville	Middle	7	\$	35.00
WBMC	McMinnville	Middle	7	\$	56.00
WOWC FM	McMinnville	Middle	6	\$	72.00
WTRZ FM	McMinnville	Middle	7	\$	70.00
IDIA AM	Memphis	West	8	\$	80.00
IEGR FM	Memphis	West	8	\$	80.00
IHAL FM	Memphis	West	8	\$	80.00
IHRK FM	Memphis	West	8	\$	80.00
IREC	Memphis	West	7	\$	70.00
KJMS FM	Memphis	West	6	\$	600.00
KWNW FM	Memphis	West	7	\$	455.00
RJMS FM	Memphis	West	8	\$	80.00
RWNW FM	Memphis	West	8	\$	80.00
WDIA	Memphis	West	8	\$	560.00
WEGR FM	Memphis	West	7	\$	560.00
WHAL FM	Memphis	West	9	\$	720.00
WHBQ AM	Memphis	West	12	\$	600.00
WHRK FM	Memphis	West	5	\$	500.00
WLOK	Memphis	West	6	\$	270.00
WREC	Memphis	West	8	\$	640.00
WKXD FM	Monterey	Middle	95	\$	840.42
WCRK FM	Morristown	East	9	\$	144.00
WMTN	Morristown	East	13	\$	156.00
BSIX	Nashville	Middle	3	\$	225.00
WCJK FM	Nashville	Middle	3	\$	300.00
WCRT	Nashville	Middle	3	\$	39.00
WECV FM	Nashville	Middle	3	\$	57.00
WGFX FM	Nashville	Middle	39	\$	2,925.00
WJXA FM	Nashville	Middle	12	\$	1,800.00
WKDF FM	Nashville	Middle	44	\$	6,600.00
WLAC	Nashville	Middle	2	\$	150.00
WNRQ FM	Nashville	Middle	2	\$	150.00
WQOK FM	Nashville	Middle	6	\$	120.00
WRVW FM	Nashville	Middle	3	\$	225.00
WSIX FM	Nashville	Middle	2	\$	150.00
WSM AM	Nashville	Middle	47	\$	940.00
WUBT FM	Nashville	Middle	2	\$	150.00
WWTN FM	Nashville	Middle	27	\$	540.00
WLIK	Newport	East	10	\$	80.00
WAKQ FM	Paris	West	4	\$	16.00
WLZK FM	Paris	West	31	\$	124.00
WMUF FM	Paris	West	31	\$	124.00
WRQR AM / FM	Paris	West	31	\$	124.00
WTPR AM / FM	Paris	West	7	\$	28.00
WBFQ	Parkers Crossroads	West	60	\$	600.00

WPRT FM	Peagram / Nashville	Middle	17	\$	1,700.00
WPRT FM-D2	Peagram / Nashville	Middle	18	\$	450.00
WKWX FM	Savannah	West	90	\$	450.00
WORM	Savannah	West	20	\$	120.00
WORM FM	Savannah/ Clifton	West	20	\$	120.00
WXOQ	Selmer/Bolivar	West	20	\$	120.00
WUUQ FM	South Pittsburg / Chattanooga	East	8	\$	531.43
WSMT	Sparta	Middle	7	\$	140.00
WTZX	Sparta	Middle	6	\$	24.00
KYTN FM	Union City	West	59	\$	885.00
WENK	Union City	West	7	\$	70.00
WQAK FM	Union City	West	55	\$	825.00
WWKF	Union City	West	10	\$	100.00
<b>TOTALS:</b>			<b>2393</b>	<b>\$</b>	<b>54,201.86</b>

**Tennessee Stormwater Association**  
Tennessee Association of Broadcasters Public Education Program  
Summary Report - April, 2017

Station (s)	City	Region	Units	Total
WUCT	Algood / Cookeville	Middle	70	\$ 363.20
WSLV	Ardmore	Middle	10	\$ 100.00
WMPS	Bartlett	West	12	\$ 600.00
WBXE FM	Baxter / Cookeville	Middle	90	\$ 964.32
WMOD FM	Bolivar	West	45	\$ 281.25
WRKM	Carthage	Middle	28	\$ 217.00
WUCZ FM	Carthage	Middle	25	\$ 246.25
WDEF FM	Chattanooga	East	7	\$ 465.00
WDOD FM	Chattanooga	East	7	\$ 465.00
WKXJ FM	Chattanooga	East	6	\$ 36.00
WLND FM	Chattanooga	East	6	\$ 30.00
WRXR FM	Chattanooga	East	6	\$ 66.00
OTLW HD	Clarksville	Middle	60	\$ 900.00
WCVQ FM	Clarksville	Middle	61	\$ 1,830.00
WCVQ HD 2-SUNNY	Clarksville	Middle	70	\$ 1,050.00
WKFN	Clarksville	Middle	60	\$ 1,800.00
WRND FM	Clarksville	Middle	63	\$ 1,890.00
WVVR FM	Clarksville	Middle	57	\$ 1,710.00
WZZP FM	Clarksville	Middle	65	\$ 1,950.00
WUSY FM	Cleveland / Chattanooga	East	6	\$ 390.00
WUSY FM HD2	Cleveland / Chattanooga	East	6	\$ 6.00
WYSH AM	Clinton	East	1	\$ 10.00
WCRV	Collierville / Memphis	West	3	\$ 66.00
WGSQ FM	Cookeville	Middle	7	\$ 315.00
WHUB	Cookeville	Middle	5	\$ 75.00
WKSW FM	Cookeville	Middle	8	\$ 200.00
WPTN AM / FM	Cookeville	Middle	6	\$ 84.00
WKBL	Covington	West	60	\$ 900.00
WKBQ FM	Covington	West	60	\$ 1,500.00
WAEW AM / FM	Crossville	Middle	6	\$ 90.00
WCSV	Crossville	Middle	6	\$ 90.00
WOWF FM	Crossville	Middle	6	\$ 240.00
WPBX	Crossville	Middle	5	\$ 150.00
WEKR	Fayetteville	Middle	20	\$ 200.00
WYTM FM	Fayetteville	Middle	20	\$ 200.00
WRLT FM	Franklin / Nashville	Middle	29	\$ 507.50
WHIN	Gallatin	Middle	4	\$ 64.00
WMRO	Gallatin	Middle	20	\$ 140.00
WQZQ AM / FM	Goodlettsville / Nashville	Middle	17	\$ 425.00
WMYL FM	Halls Crossroads	East	30	\$ 750.00
WDXI	Jackson	West	20	\$ 120.00
WMXX	Jackson	West	20	\$ 120.00
WKPT AM / FM	Kingsport	East	17	\$ 170.00
WRZK FM	Kingsport	East	19	\$ 285.00
WTFM FM	Kingsport	East	15	\$ 825.00
WCYQ FM	Knoxville	East	4	\$ 140.00
WKHT FM	Knoxville	East	4	\$ 120.00
WNOX FM	Knoxville	East	4	\$ 100.00
WWST FM	Knoxville	East	4	\$ 160.00
WBUZ FM	LaVergne / Nashville	Middle	17	\$ 1,700.00

WBUZ FM-D3	LaVergne / Nashville	Middle	18	\$	450.00
WANT FM	Lebanon	Middle	10	\$	140.00
WZLT	Lexington TN	West	60	\$	540.00
WLIV	Livingston	Middle	11	\$	60.50
WLIV FM	Livingston	Middle	11	\$	99.00
WLQK FM	Livingston	Middle	79	\$	775.44
WCMT	Martin	West	47	\$	564.00
WCMT FM	Martin	West	91	\$	1,092.00
WCDZ FM	Martin/Dresden	West	32	\$	384.00
WHDM AM / FM	McKenzie	West	18	\$	72.00
WAKI	McMinnville	Middle	6	\$	30.00
WBMC	McMinnville	Middle	6	\$	48.00
WOWC FM	McMinnville	Middle	6	\$	72.00
WTRZ FM	McMinnville	Middle	6	\$	60.00
IDIA AM	Memphis	West	11	\$	110.00
IEGR FM	Memphis	West	11	\$	110.00
IHAL FM	Memphis	West	11	\$	110.00
IHRK FM	Memphis	West	11	\$	110.00
IREC	Memphis	West	11	\$	110.00
KJMS FM	Memphis	West	8	\$	800.00
KWNW FM	Memphis	West	11	\$	715.00
RJMS FM	Memphis	West	9	\$	90.00
RWNW FM	Memphis	West	11	\$	110.00
WDIA	Memphis	West	11	\$	770.00
WEGR FM	Memphis	West	11	\$	880.00
WHAL FM	Memphis	West	10	\$	800.00
WHBQ AM	Memphis	West	12	\$	600.00
WHRK FM	Memphis	West	10	\$	1,000.00
WLOK	Memphis	West	6	\$	270.00
WREC	Memphis	West	11	\$	880.00
WKXD FM	Monterey	Middle	84	\$	860.16
WCRK FM	Morristown	East	7	\$	112.00
WMTN	Morristown	East	11	\$	132.00
BSIX	Nashville	Middle	3	\$	225.00
WCJK FM	Nashville	Middle	5	\$	500.00
WCRT	Nashville	Middle	3	\$	39.00
WECV FM	Nashville	Middle	3	\$	57.00
WGFX FM	Nashville	Middle	41	\$	3,075.00
WJXA FM	Nashville	Middle	6	\$	900.00
WKDF FM	Nashville	Middle	52	\$	7,800.00
WLAC	Nashville	Middle	3	\$	225.00
WNRQ FM	Nashville	Middle	3	\$	225.00
WQKQ FM	Nashville	Middle	13	\$	260.00
WRVW FM	Nashville	Middle	3	\$	225.00
WSM AM	Nashville	Middle	52	\$	1,040.00
WUBT FM	Nashville	Middle	3	\$	225.00
WWTN FM	Nashville	Middle	27	\$	540.00
WLIK	Newport	East	11	\$	88.00
WAKQ FM	Paris	West	8	\$	32.00
WLZK FM	Paris	West	18	\$	72.00
WMUF FM	Paris	West	18	\$	72.00
WRQR AM / FM	Paris	West	18	\$	72.00
WTPR AM / FM	Paris	West	5	\$	20.00
WBFQ	Parkers Crossroads	West	60	\$	600.00
WPRT FM	Peagram / Nashville	Middle	18	\$	1,800.00

WPRT FM-D2	Peagram / Nashville	Middle	17	\$	425.00
WKWX FM	Savannah	West	90	\$	450.00
WORM	Savannah	West	20	\$	120.00
WORM FM	Savannah/ Clifton	West	20	\$	120.00
WXOQ	Selmer/Bolivar	West	20	\$	120.00
WUUQ FM	South Pittsburg / Chattanooga	East	7	\$	465.00
WSMT	Sparta	Middle	6	\$	120.00
WTZX	Sparta	Middle	6	\$	24.00
WJCW	Tri-Cities	East	2	\$	80.00
WQUT	Tri-Cities	East	2	\$	80.00
WXSM	Tri-Cities	East	3	\$	120.00
KYTN FM	Union City	West	58	\$	870.00
WENK	Union City	West	7	\$	70.00
WQAK FM	Union City	West	52	\$	780.00
WWKF	Union City	West	10	\$	100.00
<b>TOTALS:</b>			<b>2558</b>	<b>\$</b>	<b>60,098.62</b>

**ILLCIT DISCHARGE DETECTION AND  
ELIMINATION**

**303d List for Goodlettsville TN.**

2016/17

Warren Garrett

Final Version 2014 303(d) LIST (Cheatham Reservoir Watershed cont.)

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority	Pollutant Source	COMMENTS
TN05130202 023 - 2000	BROWNS CREEK	Davidson	4.1	Nitrate+Nitrite Total Phosphorus Other Anthropogenic Habitat Alterations Escherichia coli Oil and Grease	Minor Industrial Point Source Discharges from MS4 area Urbanized High Density Area	Water contact advisory. Category 5. EPA approved a pathogen TMDL that addresses some of the known pollutants.
TN05130202 027 - 1000	DRY CREEK	Davidson	0.5	Escherichia coli	Collection System Failure	Water contact advisory. Category 4a, pathogen TMDL addresses the known pollutant. Stream is Category 5. (One or more uses impaired.)
TN05130202 027 - 2000	DRY CREEK	Davidson	5.9	Other Anthropogenic Habitat Alterations	Urbanized High Density Area	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN05130202 202 - 1000	PAGES BRANCH	Davidson	5.11	Escherichia coli	Discharges from MS4 area	Category 5. Approved pathogen TMDL addresses some of the known pollutants. Stream is Category 5. (One or more uses impaired.)
TN05130202 209 - 1000	COOPER CREEK	Davidson	3.9	Other Anthropogenic Habitat Alterations Escherichia coli	Discharges from MS4 area	Category 4a. Approved pathogen TMDL addresses the known pollutant.
TN05130202 211 - 1000	LOVES BRANCH	Davidson	1.71	Other Anthropogenic Habitat Alterations	Discharges from MS4 area	Category 5. Flow alteration is 4c (impact not caused by a pollutant).
TN05130202 212 - 0100	NEELEYS BRANCH	Davidson	1.7	Escherichia coli	Discharges from MS4 area	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN05130202 220 - 0100	GIBSON CREEK	Davidson	3.7	Habitat loss due to stream flow alteration Other Anthropogenic Habitat Alterations	Discharges from MS4 area Hydromodification	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN05130202 220 - 0100	LUMSLEY FORK	Davidson	4.7	Escherichia coli	Discharges from MS4 area	Category 4a. Approved pathogen TMDL addresses the known pollutant.
TN05130202 220 - 0200	WALKERS CREEK	Davidson	6.49	Escherichia coli	Undetermined Source	Randomly selected for Impounded Streams Study. Category 4C. Impairment not caused by a pollutant.
TN05130202 220 - 0210	UNNAMED TRIB TO WALKERS CREEK	Davidson	1.47	Flow Alteration	Upstream Impoundment	Category 5. Approved pathogen TMDL addresses some of the known pollutants. Category 4a, pathogen TMDL addresses the known pollutant.
TN05130202 220 - 0300	SLATERS CREEK	Sumner	0.99	Loss of biological integrity due to siltation Escherichia coli	Sand/Gravel/Rock Quarry Discharges from MS4 area Bank Modification	Category 5. Approved pathogen TMDL addresses some of the known pollutants. Category 4a, pathogen TMDL addresses the known pollutant.
TN05130202 220 - 0350	SLATERS CREEK	Sumner	10.24	Escherichia coli	Discharges from MS4 area	Category 4a, pathogen TMDL addresses the known pollutant.

Final Version 2014 303(d) LIST (Cheatham Reservoir Watershed cont.)

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority	Pollutant Source	COMMENTS
TN05130202 220 - 0400	MADISON CREEK	Sumner	14.4	Loss of biological integrity due to siltation	Land Development	Stream is Category 5. (One or more uses impaired.)
TN05130202 220 - 0500	CENTER POINT BRANCH	Sumner	3.8	Organic Enrichment	Discharges from MS4 area	Stream is Category 5. (One or more uses impaired.)
TN05130202 220 - 1000	MANSKERS CREEK	Davidson Sumner	7.9	Loss of biological integrity due to siltation Escherichia coli	Discharges from MS4 area	Water contact advisory. Category 5. EPA approved a pathogen TMDL that addresses some of the known pollutants.
TN05130202 220 - 2000	MANSKERS CREEK	Davidson Sumner	7.6	Loss of biological integrity due to siltation Low Dissolved Oxygen Escherichia coli	Discharges from MS4 area	Category 5. EPA approved a pathogen TMDL that addresses some of the known pollutants.
TN05130202 314 - 0300	BOSLEY SPRINGS BRANCH	Davidson	1.5	Nitrate+Nitrite Total Phosphorus Other Anthropogenic Habitat Alterations Escherichia coli	Discharges from MS4 area	Category 5. EPA approved a pathogen TMDL that addresses some of the known pollutants.
TN05130202 314 - 0400	SUGARTREE CREEK	Davidson	4.3	Nitrate+Nitrite Total Phosphorus Low Dissolved Oxygen Other Anthropogenic Habitat Alterations Escherichia coli	Discharges from MS4 area Urbanized High Density Area	Category 5. EPA approved a pathogen TMDL that addresses some of the known pollutants.
TN05130202 314 - 0700	VAUGHNS GAP BRANCH	Davidson	0.6	Other Anthropogenic Habitat Alterations Escherichia coli	Collection System Failure Urbanized High Density Area	Category 5. Approved pathogen TMDL addresses some of the known pollutants.
TN05130202 314 - 0750	VAUGHNS GAP BRANCH	Davidson	1.9	Other Anthropogenic Habitat Alterations Escherichia coli	Discharges from MS4 area Urbanized High Density Area	Category 5. Approved pathogen TMDL addresses some of the known pollutants.
TN05130202 314 - 0800	JOCELYN HOLLOW BRANCH	Davidson	2.0	Nitrate+Nitrite Total Phosphorus Escherichia coli	Discharges from MS4 area	Category 4a. Approved pathogen TMDL addresses the known pollutants.
TN05130202 314 - 1000	RICHLAND CREEK	Davidson	1.9	Total Phosphorus Nitrate+Nitrite Other Anthropogenic Habitat Alterations Escherichia coli	Collection System Failure Urbanized High Density Area Discharges from MS4 area	Advisory due to Metro collection system overflows. Category 5. Approved pathogen TMDL addresses some of the known pollutants.

2. (B) Are there established and approved TMDLs with waste load allocations for MS4 discharges in your jurisdiction? If yes, attach a list.

Waterbody I.D. #	Cause/TMDL Priority	Approved TMDL
TN05130202027-2000 Dry Creek	Habitat alterations	No
TN05130202220-0100 Lumsley Fork	E. coli	Yes
TN05130202220-0400 Madison Creek	Siltation	No
TN05130202220-1000 Mansker Creek	Siltation	No
TN05130202220-2000 Mansker Creek	Siltation	No
TN05130202220-1000 Mansker Creek	E. coli	Yes
TN05130202220-2000 Mansker Creek	E. coli	Yes
TN05130202220-0300 Slater's Creek	E. coli	Yes
TN05130202220-0300 Slater's Creek	Siltation	No

**SWPPP**

**City of Goodlettsville**

2016/17

Warren Garrett

# Department: Public Works

## Stormwater Pollution Prevention Plan (SWPPP)

Microsoft  
Warren Garrett

January 2017 Revised

In 1972, Congress passed the Clean Water Act to restore and maintain the quality of the nation's waterways. From that has derived a program where the City of Goodlettsville has been permitted by the State of Tennessee through TDEC (Tennessee Department of Environment and Conservation) to allow water flowing off of the land within the City's limits to reach our creeks and streams.

One of the many programs in place within the City's stormwater program is a good housekeeping approach. Developing, implementing, and maintaining a Stormwater Pollution Prevention Plan (SWPPP) on a municipal level will help improve our local water quality. The primary goal of the stormwater permit program is to improve the quality of surface waters by reducing the amount of pollutants potentially contained in the stormwater runoff.

<b>Stormwater Contact</b>	<b>Andy Garrett</b>
<b>Phone</b>	<b>615-859-2740</b>
<b>Email</b>	<b>agarrett@goodlettsville.gov</b>
<b>Facility Permit Name:</b>	<b>City of Goodlettsville</b>
<b>Permit Number:</b>	<b>TNS 075345</b>
<b>Date of Coverage:</b>	
<b>Receiving Water(s):</b>	<b>Tributary to Mansker's Creek</b>

**Site Map**

Showing Public Works Facility Buildings



## Identification of Potential Stormwater Pollutants

- × Pesticides/Fertilizers
- × Cleaning agents
- × Asphalt
- × Paints
- × Vehicle fluids
- × Sand
- × Salt
- × Trash
- × Storage/disposal areas
- × Equipment maintenance
- × Loading/unloading areas
- × Liquid storage tanks
- × Equipment operating areas

List exposed materials that may be potential pollutants:

Area	Material	Method of Exposure
Yard	Wood Mulch	Temporary stockpile



## **BMPs**

Best management practices are implemented to reduce the amount of pollutants in stormwater.

### Basic BMPs for Employees (Good Housekeeping)

#### *Goal*

Promote efficient and safe housekeeping practices which keep potential pollutants from either draining into or being transported offsite

#### *Approach*

1. Never dispose of wash-water to storm drain or pavement; it must be disposed of to the sanitary sewer. Wash-water can be defined as any liquid with cleaner with residual dirt and grime. Examples include mop-water, window cleaning water, and rinse water (rinsing after a cleaner was used). Plain (no residual cleaner) rinse water may be used for irrigating plants. Always check with the sewer department supervisor prior to putting an unconventional waste into the sanitary sewer.
2. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to clean or handle a spill, unless the liquid will be completely contained, cleaned up and disposed of to sanitary sewer or offsite as appropriate for the waste type. Do not discharge to storm drains, landscape or off-site. Wastes, salvaged materials and recyclables must be properly contained.
3. Schedule regular cleaning of areas that collect debris to eliminate particulate and residue buildup. This applies to both exterior and interior areas. Keeping interior areas clean prevents the tracking of contaminants outdoors. Add trash containers, when appropriate, to minimize littering.
4. Evaluate safer alternative products for any job that usually uses toxic or hazardous products. For instance, investigate alternative floor and window cleaners (specialized cleaners), general cleaners, adhesives, paints, and lubricants. When available and cost effective, these products should be used.
5. Do not use drains without knowing whether they flow to the sanitary sewer, storm system or self-contained internal sump. Confirm before using drains to ensure proper disposal.
6. Store equipment and supplies under cover whenever possible. Minimizing contact with storm water minimizes contaminants from getting into storm water run-off. Use exterior grade cabinets or containers when exposed to the weather; interior grade cabinets and containers will rust or deteriorate contributing contaminants to storm water run-off.
7. Do not wash vehicles on City property, unless there is a procedure protecting the storm water system by containing and properly disposing of the wash-water and debris.
8. Litter is still a problem; throw all trash in disposal or recycling containers.
9. Always have spill response equipment available near the storage of liquid or hazardous substances.
10. Leaking equipment should be equipped with drip-pans, appropriate clean-up materials, and have proper containment.
11. Any complaints received regarding the stormwater system should be addressed as soon as possible and documented.
12. Annual stormwater training sessions must be documented.

#### *Maintenance*

1. Ongoing as improvements are continually being made.

2. Conduct annual stormwater employee training. Each employee in attendance must document their attendance by signing in on a sign-in sheet and the sign-in sheet must include the date the training took place, who facilitated the training, the length of the training (minimum of an hour) and the topics covered.
3. Monthly inspections are performed utilizing the City of Goodlettsville Good Housekeeping Inspection Sheet checklist (see page 13).

## Storm Drains & Catch Basins

### *Goal*

To prevent the discharge of soil, debris, hazardous waste, and other pollutants that may hinder the designed conveyance capacity or damage stormwater quality or habitat in the storm drain system.

### *Approach*

1. Inspect storm water drains, grates, inlets, ditches, swales and catch basins on a regular basis. Keep a log of areas and structures inspected and maintained.-
2. Clean storm grates, inlets, drains, ditches, swales and catch basins to remove the accumulation of debris and sediment. Keep a log of the material removed from each structure. Clean structures on a regular basis to keep debris from accumulating.
3. Promptly repair any damaged or deteriorating structure or any other problems that may compromise the integrity of the storm water drainage system. Keep a log of storm water system maintenance.
4. Update facility schematics with any change to the plumbing (to prevent cross connections) or storm water drain system. Discharges allowed according to the City's stormwater ordinance are the only discharges allowed into the City's storm water system.
5. Make sure that employees know that storm drains, catch basins and culverts are part of the storm water collection system; not part of the sanitary sewer system.
6. Affix storm drain labels according to manufacturer's instructions. See Public Works Director to obtain storm drain labels.
7. If filters are used on storm drains, ensure proper installation and maintenance. Document cleaning and maintenance activities.

### *Equipment*

1. Water source (water tank truck or fire hydrant)
2. Sediment collector (vacuum, etc.)
3. Inflatable device to block flow
4. Containment/treatment equipment for sediment and turbidity if flushing to an open channel

## Trash & Dumpster Management

### *Goal*

Prevent or reduce the discharge of pollutants to stormwater system or natural streams using effective management of waste materials. Education and training employees & subcontractors; proper material use; source reduction; tracking waste generation and disposal; proper material storage, recycling,

preventing stormwater contact and runoff from waste management areas and good waste disposal procedures. Keep outside areas neat, clean, and orderly.

### *Approach*

#### Solid Waste Management

1. Keep dumpsters, trashcans and recycling bins covered and properly contained, except when filling or emptying. Schedule pickup frequency to keep trash from holding the cover open. Open lids allow contact with storm water, which dissolves and transports contaminants into the storm water system. Open lids also invite pests to spread trash around.
2. Do not put liquids or greases in the trash containers. They should be discarded according to the Sewer Department's specifications.
3. Check that the dumpster or trashcan to ensure it is in good condition, with no holes or accumulation of grime. Trash containers should be leak-free.
4. Regularly inspect the trash enclosure and general area for problems such as trash not in the container and accumulation of grease or food on the ground. Clean the trash enclosure as needed to remove any accumulations of grim and/or general trash.
5. Designate an area for trash collection away from storm drains. This allows problems at the trash container to be corrected before reaching the storm drain or flow offsite.
6. Minimize storage of scrap metal by disposing of it periodically. Cover the stockpile during rain to reduce the release of contaminants.
7. Should problems occur with City-issued trash containers, contact the Solid Waste Supervisor.

#### Hazardous Waste Management

1. Use the entire product before disposing of the container. If the product is wet or moist, allow container to dry prior to disposal. Do not remove the original product label as it contains important safety and disposal information. MSDS information should be consulted for each product that is stored or handled. Employees should be made aware of the safety information.
2. Use appropriate containment devices where the potential for spills exist. Keep hazardous waste in appropriate containers and under cover. Place hazardous waste containers in secondary containment. Do not allow hazardous materials to accumulate on the ground.
3. Keep hazardous and non-hazardous waste separate. Store hazardous materials and wastes in covered containers.
4. Do not mix wastes as this can cause unforeseen chemical reactions.
5. Refer to MSDS book and the HCP (Hazardous Communication Plan) when handling, storing, and using hazardous materials.
6. Check waste management areas for spills and leaks.

## Material & Hazardous Waste Storage

### *Goal*

Prevent or reduce the discharge of pollutants to storm water from material delivery and storage by minimizing the storage of hazardous materials on-site, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

### *Commonly Stored Materials*

1. Sand, salt, rock, and top soil
2. Pesticides and herbicides
3. Fertilizers
4. Detergents
5. Petroleum products
6. Acids, lime, glues, paints, solvents, etc.
7. Spill response materials

### *Approach*

1. Designated areas for material storage are found throughout the complex.
2. Refer to the MSDS binder to follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals.
3. Always store materials and wastes indoors or under cover whenever possible.
4. Minimize storage needs by purchasing smaller amounts of material more frequently and as needed for specific jobs. Stockpiling materials, which often must be stored outside and exposed to storm water, increases the possibility of pollutants flowing offsite.
5. Store chemicals away from doors and out of traffic pathways.
6. Use drip pans (or other containment device) under taps, nozzles, and spouts to catch drips.
7. Transfer the contents of a leaking container promptly to another container; make sure the new container is appropriately labeled. OSHA mandates labeling for all containers. (Refer to Hazardous Communication Plan for labeling instructions.)
8. Always store used parts (i.e., vehicle, electronic, mechanical) under cover to prevent the leaching of any materials into storm water runoff.
9. Stockpiles of gravel, asphalt, sand, salt, top soil, and other raw materials should be stored on a paved surface. The stockpiles should be situated to prevent storm water flowing through the stockpile.
10. Cover stockpiles and put in up-gradient perimeter berms to deflect the storm water. Install down-gradient perimeter berms to prevent sediment and other contaminants from leaving the stockpile area.
11. Conduct preventative maintenance on a routine basis on secondary containment structures, pipes, valves, pumps and other equipment to ensure proper operation and to identify potential leaks.
12. Return equipment and material to their proper storage place after use.
13. Schedule regular cleaning of outside storage areas and yards. Review the stockpiled equipment and supplies (materials). Often there are unusable materials at the back of the storage area. Usable materials should be stored to indicate possible use and to minimize contact with storm water. Unused or unusable material should be removed as soon as possible. Develop a plan to regularly dispose of unneeded materials.

14. Provide regularly-scheduled training for MSDS/HAZMAT/HCP. Document all training. Provide an easily-accessible MSDS binder which also contains a hazardous communication plan and any HAZMAT-related items employees or contractors need to know.

## Vehicle & Equipment

### Fueling

#### *Goal*

Prevent fuel spills and leaks, and reduce their impacts to stormwater by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors. Ensure above-ground storage tanks have correctly functioning secondary containment. This management practice is likely to create a partial reduction in toxic materials and oil and grease.

#### *Approach*

1. Discourage topping-off of fuel tanks to reduce accidental spillage. Post "no topping-off" signs at the fuel islands. Encourage the use of 'hold open latches' on fuel nozzles.
2. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to clean or handle a spill, unless the liquid will be completely contained, cleaned up and disposed of appropriately for the waste type. Do not discharge any liquid to storm drains or offsite.
3. Regularly inspect oil/water separator and sumps; conduct maintenance as indicated by these inspections.

#### *Maintenance*

1. Keep ample supplies of spill cleanup materials on site.
2. Pumps are on a routine monthly and annual inspection and maintenance program which is regulated by the State.

## Washing & Cleaning

#### *Goal*

Prevent or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning by using off-site facilities, washing in designated, contained areas only, eliminating discharges to the storm drain by infiltrating or recycling the wash water, and training employees and subcontractors. This management practice is likely to cause a partial reduction in toxic materials and oil and grease.

#### *Approach*

1. Use designated wash areas to prevent wash water from entering the storm sewer system.
2. Use phosphate-free, biodegradable soaps.
3. Do not use solvents.
4. When cleaning vehicles/equipment:
  - a. Use as little water as possible to avoid having to install erosion and sediment controls for the wash area. High pressure sprayers may use less water than a hose, and should be considered.

- b. Use positive shutoff valve to minimize water usage.
- 5. Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills. Use the following three-step method for cleaning floors:
  - a. Clean spills with rags or other absorbent materials.
  - b. Sweep floor using dry absorbent material.
  - c. Mop floor. Mop water may be discharged to the sanitary sewer via a toilet or sink.
- 6. Keep equipment clean; don't allow excessive build-up of oil and grease.
- 7. Keep drip pans or containers under the areas that might drip.
- 8. If possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials.

## Leak & Spill Control

### *Goal*

Prevent or reduce the discharge of pollutants to storm water from vehicle leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

### *Approach*

1. Perform fluid removal and changes inside or under cover on paved surfaces.
2. Properly store hazardous materials and waste.
3. Have spill cleanup supplies readily available.
4. Use dry cleanup methods.
5. Make sure incoming vehicles are checked for leaking oil and fluids.

## Maintenance

### *Goal*

Prevent or reduce the discharge of pollutants to stormwater from vehicle maintenance. This BMP is likely to partially reduce sediment, nutrients, toxic materials, oil and grease, and heavy metals.

### *Approach*

1. Perform maintenance using indoor facilities instead of outside whenever possible as to protect the stormwater runoff. If maintenance should be done outside, ensure correct procedures are followed where prevention practices for spills and leaks can be practiced if needed.
2. If an outdoor maintenance area is needed, it should be located on a paved concrete surface in order to facilitate cleanup. Use barriers to prevent stormwater runoff from entering the area.
3. Use a secondary containment such as a drain pan or drop cloth to catch spills or leaks. Keep a drip pan under the vehicle when removing hoses, filters, or other parts.
4. Have an ample supply of cleanup materials where they are readily accessible and properly stored.
5. Clean leaks and other spills with as little amount of water as possible. Use rags for small spills, a damp mop for general cleanup and dry absorbent materials for larger spills.

6. Provide spill containment dikes or secondary containment around stored oil and chemical drums.

### Sanitary Sewer Maintenance

#### *Goal*

Prevent or reduce the discharge of pollutants to stormwater system and natural streams from sanitary and septic waste. Provide convenient and well-maintained restroom facilities. Arrange for permanent connections to the sanitary sewer system or schedule for regular service and disposal. This management practice will significantly reduce nutrients, bacteria and viruses, and oxygen demanding substances.

#### *Approach*

1. Refer to CMOM Manual on detailed maintenance operations and procedures.
2. The immediate contacts for sewer-related issues are the City Engineer, Engineering Technician, or Sewer Department Supervisor.

#### *Inspections*

Monthly inspections occur utilizing the checklist. The original document is submitted to the Engineering Department to keep on file.

### Preventive Maintenance

Preventive maintenance involves the regular inspection, testing, and cleaning of facility equipment and operational systems.

Spill prevention is another method of preventive maintenance. If materials are kept and used properly, this lessens the chances of spills occurring. Should a significant spill occur, document this on the monthly inspection form and the action(s) taken to clean up the spill.



# Department: Parks

## Stormwater Pollution Prevention Plan (SWPPP)

Microsoft  
Warren Garrett

January 2017 Revised

In 1972, Congress passed the Clean Water Act to restore and maintain the quality of the nation's waterways. From that has derived a program where the City of Goodlettsville has been permitted by the State of Tennessee through TDEC (Tennessee Department of Environment and Conservation) to allow water flowing off of the land within the City's limits to reach our creeks and streams.

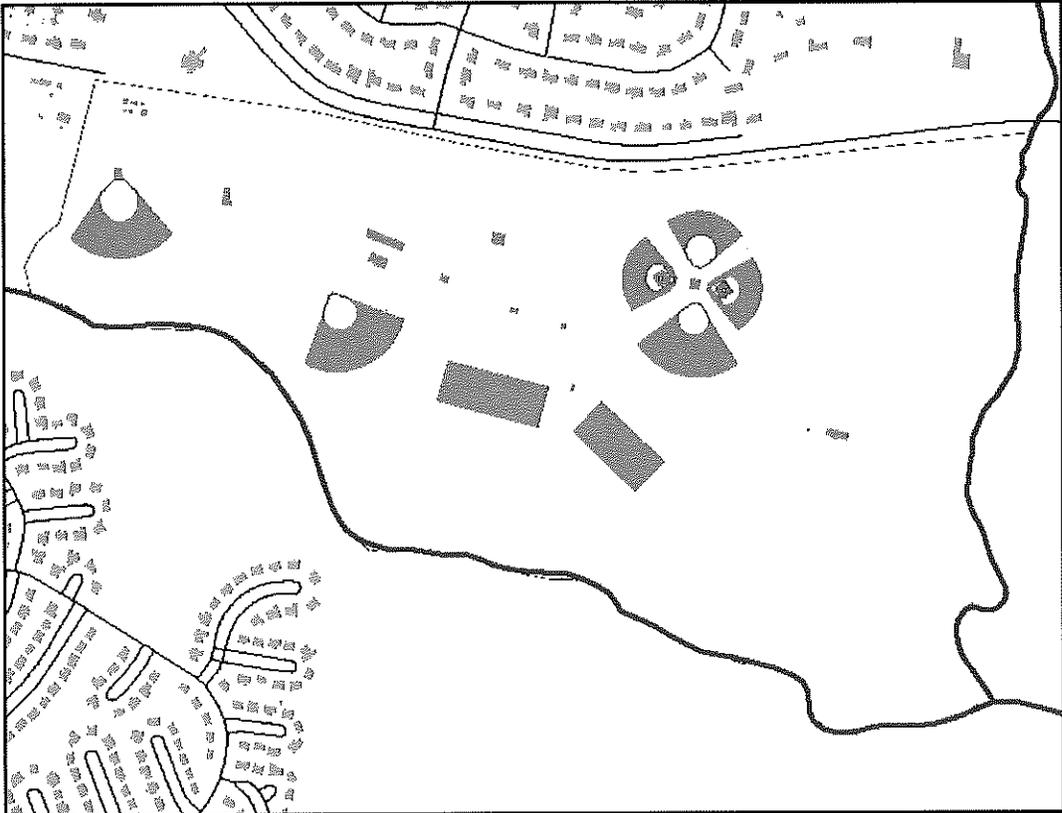
One of the many programs in place within the City's stormwater program is a good housekeeping approach. Developing, implementing, and maintaining a Stormwater Pollution Prevention Plan (SWPPP) on a municipal level will help improve our local water quality. The primary goal of the stormwater permit program is to improve the quality of surface waters by reducing the amount of pollutants potentially contained in the stormwater runoff.

<b>Stormwater Contact</b>	<b>Jack Presley</b>
<b>Phone</b>	<b>615-347-9991</b>
<b>Email</b>	<b>jjpresley@goodlettsville.gov</b>
<b>Facility Permit Name:</b>	<b>City of Goodlettsville</b>
<b>Permit Number:</b>	<b>TNS 075345</b>
<b>Receiving Waters:</b>	<b>Tributary to Mansker's Creek, Mansker's Creek, and Madison Creek</b>

# Site Map

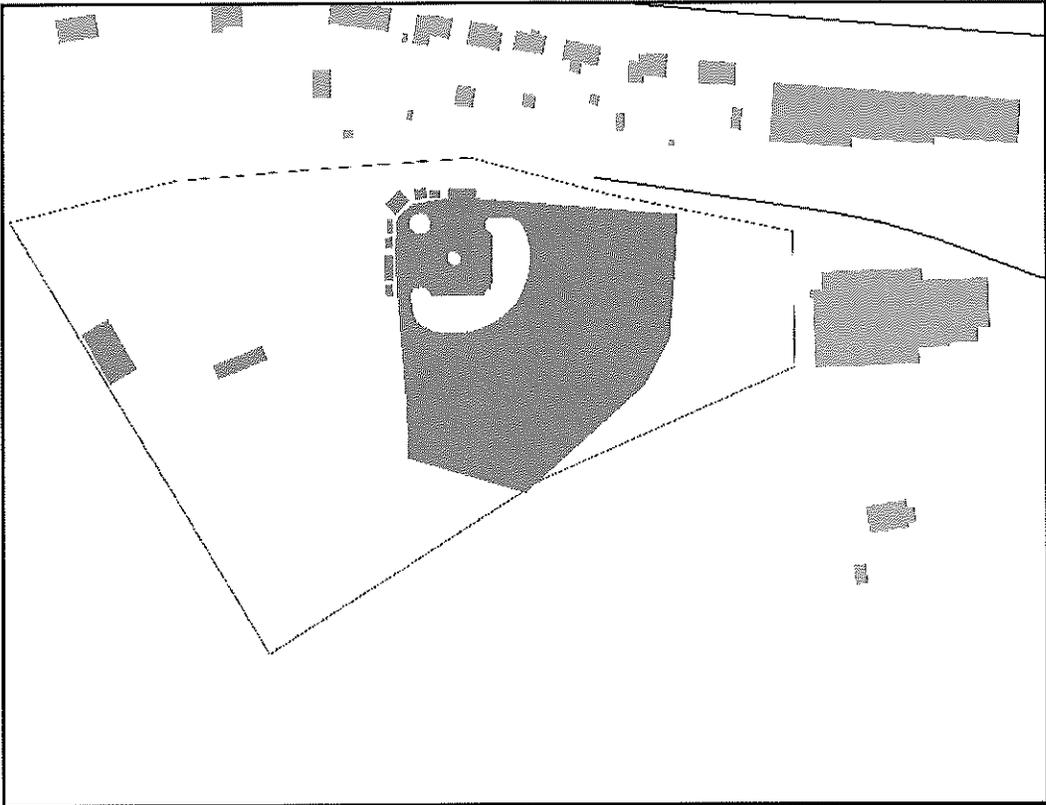
Showing Parks Facility Buildings

Moss-Wright Park (Mansker Creek runs along the bottom, Madison Creek run along the right side)



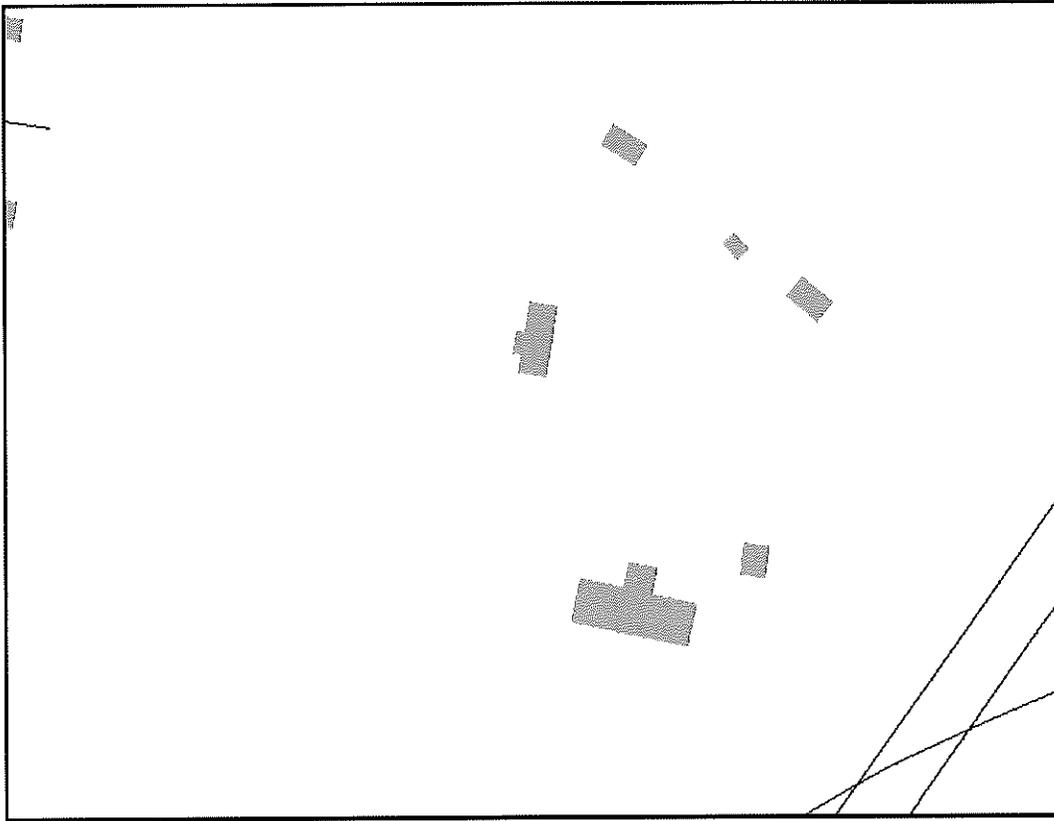
Peay Park

Receiving waterbody is a tributary to Mansker's Creek



Pleasant Green Park

Receiving waterbody – tributary to Dry Creek



Northcreek Park

This is a newer park to the City that has yet to be developed. No buildings or structures currently exist on this property, only a ball field. It is adjacent to Mansker's Creek.

# Identification of Potential Stormwater Pollutants

- × Pesticides/Fertilizers
- × Cleaning agents
- × Asphalt
- × Paints
- × Vehicle fluids
- × Sand
- × Salt
- × Trash
- × Storage/disposal areas
- × Equipment maintenance
- × Loading/unloading areas
- × Liquid storage tanks
- × Equipment operating areas
- × Landscaping activities

List exposed materials that may be potential pollutants:

Area	Material	Method of Exposure



## **BMPs**

Best management practices are implemented to reduce the amount of pollutants in stormwater.

### Basic BMPs for Employees (Good Housekeeping)

#### *Goal*

Promote efficient and safe housekeeping practices which keep potential pollutants from either draining into or being transported offsite

#### *Approach*

1. Never dispose of wash-water to storm drain or pavement; it must be disposed of to the sanitary sewer. Wash-water can be defined as any liquid with cleaner with residual dirt and grime. Examples include mop-water, window cleaning water, and rinse water (rinsing after a cleaner was used). Plain (no residual cleaner) rinse water may be used for irrigating plants. Always check with the sewer department supervisor prior to putting an unconventional waste into the sanitary sewer.
2. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to clean or handle a spill, unless the liquid will be completely contained, cleaned up and disposed of to sanitary sewer or offsite as appropriate for the waste type. Do not discharge to storm drains, landscape or off-site. Wastes, salvaged materials and recyclables must be properly contained.
3. Schedule regular cleaning of areas that collect debris to eliminate particulate and residue buildup. This applies to both exterior and interior areas. Keeping interior areas clean prevents the tracking of contaminants outdoors. Add trash containers, when appropriate, to minimize littering.
4. Evaluate safer alternative products for any job that usually uses toxic or hazardous products. For instance, investigate alternative floor and window cleaners (specialized cleaners), general cleaners, adhesives, paints, and lubricants. When available and cost effective, these products should be used.
5. Do not use drains without knowing whether they flow to the sanitary sewer, storm system or self-contained internal sump. Confirm before using drains to ensure proper disposal.
6. Store equipment and supplies under cover whenever possible. Minimizing contact with storm water minimizes contaminants from getting into storm water run-off. Use exterior grade cabinets or containers when exposed to the weather; interior grade cabinets and containers will rust or deteriorate contributing contaminants to storm water run-off.
7. Do not wash vehicles on City property, unless there is a procedure protecting the storm water system by containing and properly disposing of the wash-water and debris.
8. Litter is still a problem; throw all trash in disposal or recycling containers.
9. Always have spill response equipment available near the storage of liquid or hazardous substances.
10. Leaking equipment should be equipped with drip-pans, appropriate clean-up materials, and have proper containment.
11. Any complaints received regarding the stormwater system should be addressed as soon as possible and documented.
12. Annual stormwater training sessions must be documented.

#### *Maintenance*

1. Ongoing as improvements are continually being made.

2. Conduct annual stormwater employee training. Each employee in attendance must document their attendance by signing in on a sign-in sheet and the sign-in sheet must include the date the training took place, who facilitated the training, the length of the training (minimum of an hour) and the topics covered.
3. Monthly inspections are performed utilizing the City of Goodlettsville Good Housekeeping Inspection Sheet checklist (see page 15).

## Storm Drains & Catch Basins

### *Goal*

To prevent the discharge of soil, debris, hazardous waste, and other pollutants that may hinder the designed conveyance capacity or damage stormwater quality or habitat in the storm drain system.

### *Approach*

1. Inspect storm water drains, grates, inlets, ditches, swales and catch basins on a regular basis. Keep a log of areas and structures inspected and maintained.-
2. Clean storm grates, inlets, drains, ditches, swales and catch basins to remove the accumulation of debris and sediment. Keep a log of the material removed from each structure. Clean structures on a regular basis to keep debris from accumulating.
3. Promptly repair any damaged or deteriorating structure or any other problems that may compromise the integrity of the storm water drainage system. Keep a log of storm water system maintenance.
4. Update facility schematics with any change to the plumbing (to prevent cross connections) or storm water drain system. Discharges allowed according to the City's stormwater ordinance are the only discharges allowed into the City's storm water system.
5. Make sure that employees know that storm drains, catch basins and culverts are part of the storm water collection system; not part of the sanitary sewer system.
6. Affix storm drain labels according to manufacturer's instructions. See Public Works Director to obtain storm drain labels.
7. If filters are used on storm drains, ensure proper installation and maintenance. Document cleaning and maintenance activities.

### *Equipment*

1. Water source (water tank truck or fire hydrant)
2. Sediment collector (vacuum, etc.)
3. Inflatable device to block flow
4. Containment/treatment equipment for sediment and turbidity if flushing to an open channel

## Trash & Dumpster Management

### *Goal*

Prevent or reduce the discharge of pollutants to stormwater system or natural streams using effective management of waste materials. Education and training employees & subcontractors; proper material use; source reduction; tracking waste generation and disposal; proper material storage, recycling,

preventing stormwater contact and runoff from waste management areas and good waste disposal procedures. Keep outside areas neat, clean, and orderly.

### *Approach*

#### Solid Waste Management

1. Keep dumpsters, trashcans and recycling bins covered and properly contained, except when filling or emptying. Schedule pickup frequency to keep trash from holding the cover open. Open lids allow contact with storm water, which dissolves and transports contaminants into the storm water system. Open lids also invite pests to spread trash around.
2. Do not put liquids or greases in the trash containers. They should be discarded according to the Sewer Department's specifications.
3. Check that the dumpster or trashcan to ensure it is in good condition, with no holes or accumulation of grime. Trash containers should be leak-free.
4. Regularly inspect the trash enclosure and general area for problems such as trash not in the container and accumulation of grease or food on the ground. Clean the trash enclosure as needed to remove any accumulations of grim and/or general trash.
5. Designate an area for trash collection away from storm drains. This allows problems at the trash container to be corrected before reaching the storm drain or flow offsite.
6. Minimize storage of scrap metal by disposing of it periodically. Cover the stockpile during rain to reduce the release of contaminants.
7. Should problems occur with City-issued trash containers, contact the Solid Waste Supervisor.

#### Hazardous Waste Management

1. Use the entire product before disposing of the container. If the product is wet or moist, allow container to dry prior to disposal. Do not remove the original product label as it contains important safety and disposal information. MSDS information should be consulted for each product that is stored or handled. Employees should be made aware of the safety information.
2. Use appropriate containment devices where the potential for spills exist. Keep hazardous waste in appropriate containers and under cover. Place hazardous waste containers in secondary containment. Do not allow hazardous materials to accumulate on the ground.
3. Keep hazardous and non-hazardous waste separate. Store hazardous materials and wastes in covered containers.
4. Do not mix wastes as this can cause unforeseen chemical reactions.
5. Refer to MSDS book and the HCP (Hazardous Communication Plan) when handling, storing, and using hazardous materials.
6. Check waste management areas for spills and leaks.

## Material & Hazardous Waste Storage

### *Goal*

Prevent or reduce the discharge of pollutants to storm water from material delivery and storage by minimizing the storage of hazardous materials on-site, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

### *Commonly Stored Materials*

1. Sand, salt, rock, and top soil
2. Pesticides and herbicides
3. Fertilizers
4. Detergents
5. Petroleum products
6. Acids, lime, glues, paints, solvents, etc.
7. Spill response materials

### *Approach*

1. Designated areas for material storage are found throughout the complex.
2. Refer to the MSDS binder to follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals.
3. Always store materials and wastes indoors or under cover whenever possible.
4. Minimize storage needs by purchasing smaller amounts of material more frequently and as needed for specific jobs. Stockpiling materials, which often must be stored outside and exposed to storm water, increases the possibility of pollutants flowing offsite.
5. Store chemicals away from doors and out of traffic pathways.
6. Use drip pans (or other containment device) under taps, nozzles, and spouts to catch drips.
7. Transfer the contents of a leaking container promptly to another container; make sure the new container is appropriately labeled. OSHA mandates labeling for all containers. (Refer to Hazardous Communication Plan for labeling instructions.)
8. Always store used parts (i.e., vehicle, electronic, mechanical) under cover to prevent the leaching of any materials into storm water runoff.
9. Stockpiles of gravel, asphalt, sand, salt, top soil, and other raw materials should be stored on a paved surface. The stockpiles should be situated to prevent storm water flowing through the stockpile.
10. Cover stockpiles and put in up-gradient perimeter berms to deflect the storm water. Install down-gradient perimeter berms to prevent sediment and other contaminants from leaving the stockpile area.
11. Conduct preventative maintenance on a routine basis on secondary containment structures, pipes, valves, pumps and other equipment to ensure proper operation and to identify potential leaks.
12. Return equipment and material to their proper storage place after use.
13. Schedule regular cleaning of outside storage areas and yards. Review the stockpiled equipment and supplies (materials). Often there are unusable materials at the back of the storage area. Usable materials should be stored to indicate possible use and to minimize contact with storm water. Unused or unusable material should be removed as soon as possible. Develop a plan to regularly dispose of unneeded materials.

14. Provide regularly-scheduled training for MSDS/HAZMAT/HCP. Document all training. Provide an easily-accessible MSDS binder which also contains a hazardous communication plan and any HAZMAT-related items employees or contractors need to know.

## Vehicle & Equipment

### Fueling

#### *Goal*

Prevent fuel spills and leaks, and reduce their impacts to stormwater by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors. Ensure above-ground storage tanks have correctly functioning secondary containment. This management practice is likely to create a partial reduction in toxic materials and oil and grease.

#### *Approach*

1. Discourage topping-off of fuel tanks to reduce accidental spillage. Post "no topping-off" signs at the fuel islands. Encourage the use of 'hold open latches' on fuel nozzles.
2. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to clean or handle a spill, unless the liquid will be completely contained, cleaned up and disposed of appropriately for the waste type. Do not discharge any liquid to storm drains or offsite.
3. Regularly inspect oil/water separator and sumps; conduct maintenance as indicated by these inspections.

#### *Maintenance*

1. Keep ample supplies of spill cleanup materials on site.
2. Pumps are on a routine monthly and annual inspection and maintenance program which is regulated by the State.

## Washing & Cleaning

#### *Goal*

Prevent or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning by using off-site facilities, washing in designated, contained areas only, eliminating discharges to the storm drain by infiltrating or recycling the wash water, and training employees and subcontractors. This management practice is likely to cause a partial reduction in toxic materials and oil and grease.

#### *Approach*

1. Use designated wash areas to prevent wash water from entering the storm sewer system.
2. Use phosphate-free, biodegradable soaps.
3. Do not use solvents.
4. When cleaning vehicles/equipment:
  - a. Use as little water as possible to avoid having to install erosion and sediment controls for the wash area. High pressure sprayers may use less water than a hose, and should be considered.

- b. Use positive shutoff valve to minimize water usage.
5. Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills. Use the following three-step method for cleaning floors:
  - a. Clean spills with rags or other absorbent materials.
  - b. Sweep floor using dry absorbent material.
  - c. Mop floor. Mop water may be discharged to the sanitary sewer via a toilet or sink.
6. Keep equipment clean; don't allow excessive build-up of oil and grease.
7. Keep drip pans or containers under the areas that might drip.
8. If possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials.

## Leak & Spill Control

### *Goal*

Prevent or reduce the discharge of pollutants to storm water from vehicle leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

### *Approach*

1. Perform fluid removal and changes inside or under cover on paved surfaces.
2. Properly store hazardous materials and waste.
3. Have spill cleanup supplies readily available.
4. Use dry cleanup methods.
5. Make sure incoming vehicles are checked for leaking oil and fluids.

## Maintenance

### *Goal*

Prevent or reduce the discharge of pollutants to stormwater from vehicle maintenance. This BMP is likely to partially reduce sediment, nutrients, toxic materials, oil and grease, and heavy metals.

### *Approach*

1. Perform maintenance using indoor facilities instead of outside whenever possible as to protect the stormwater runoff. If maintenance should be done outside, ensure correct procedures are followed where prevention practices for spills and leaks can be practiced if needed.
2. If an outdoor maintenance area is needed, it should be located on a paved concrete surface in order to facilitate cleanup. Use barriers to prevent stormwater runoff from entering the area.
3. Use a secondary containment such as a drain pan or drop cloth to catch spills or leaks. Keep a drip pan under the vehicle when removing hoses, filters, or other parts.
4. Have an ample supply of cleanup materials where they are readily accessible and properly stored.
5. Clean leaks and other spills with as little amount of water as possible. Use rags for small spills, a damp mop for general cleanup and dry absorbent materials for larger spills.

6. Provide spill containment dikes or secondary containment around stored oil and chemical drums.

### Sanitary Sewer Maintenance

#### *Goal*

Prevent or reduce the discharge of pollutants to stormwater system and natural streams from sanitary and septic waste. Provide convenient and well-maintained restroom facilities. Arrange for permanent connections to the sanitary sewer system or schedule for regular service and disposal. This management practice will significantly reduce nutrients, bacteria and viruses, and oxygen demanding substances.

#### *Approach*

1. Refer to CMOM Manual on detailed maintenance operations and procedures.
2. The immediate contacts for sewer-related issues are the City Engineer, Engineering Technician, or Sewer Department Supervisor.

#### *Inspections*

Monthly inspections occur utilizing the checklist. The original document is submitted to the Engineering Department to keep on file.

### Preventive Maintenance

Preventive maintenance involves the regular inspection, testing, and cleaning of facility equipment and operational systems.

Spill prevention is another method of preventive maintenance. If materials are kept and used properly, this lessens the chances of spills occurring. Should a significant spill occur, document this on the monthly inspection form and the action(s) taken to clean up the spill.

### Landscaping/Turf Management

#### *Goal*

To prevent grass clippings and lawn/landscaping waste from entering storm drains.

#### *Approach*

1. When mowing or weed eating lawns, mow so the discharge does not enter the street or drainage ditch area.
2. When applying fertilizers, pesticides, etc., follow the manufacturer's direction. Try to ensure product(s) will not be carried off site during a rain event.

**CITY OF GOODLETTSVILLE  
GOOD HOUSEKEEPING INSPECTION SHEET**

DEPARTMENT: \_\_\_\_\_

WEATHER: \_\_\_\_\_

DATE: \_\_\_\_\_

INSPECTOR: \_\_\_\_\_

<b>GOOD HOUSEKEEPING</b>	<b>N/A</b>	<b>YES</b>	<b>NO</b>	<b>ACTION NEEDED</b>
Storm drain inlets labeled with disks				
Do storm drain grates need to be cleaned or maintained				
Stormwater drainage paths are clear of dirt and debris				
Outside areas are neat and orderly				
Waste receptacles properly contained and covered				
Are vehicles or equipment cleaned at this facility				
Is wash water disposed of into the sanitary sewer system Pitfalls installed on drains are cleaned/maintained on regular basis. Note when cleaned.				
Spill response materials are available on site				
<b>HAZMAT STORAGE</b>	<b>N/A</b>	<b>YES</b>	<b>NO</b>	<b>ACTION NEEDED</b>
Are vehicles fueled at this location				
Are fuel tanks operating properly				
Do above-ground storage tanks have secondary containment				
Are containment structures or surface slabs liquid tight				
Are hazardous materials stored on site				
Are containers weatherlight, covered or properly contained and stored				
Updated MSDS folder easily accessible Regularly scheduled MSDS/HAZMAT training received and documented. Document hazardous communication plan training.				
<b>OTHER BEST MANAGEMENT PRACTICES</b>	<b>N/A</b>	<b>YES</b>	<b>NO</b>	<b>ACTION NEEDED</b>
Waste materials kept on site are in leak-tight containers				
Leaking equipment equipped with drip pans and proper clean-up supplies				
Wastes, salvaged materials and recyclables are properly contained				
Has facility received storm water complaints? If so, attach documentation.				
Have issue(s) been addressed and documented				
Contractor employee stormwater training and education documented				
Document annual stormwater employee training received				
<b>NOTES:</b>				
Document stormwater, MSDS and HAZMAT training dates, times, length, topics covered and employees who received and facilitated.				

# Department: Fire Department

Stormwater Pollution Prevention Plan (SWPPP)

January 2017 Revised

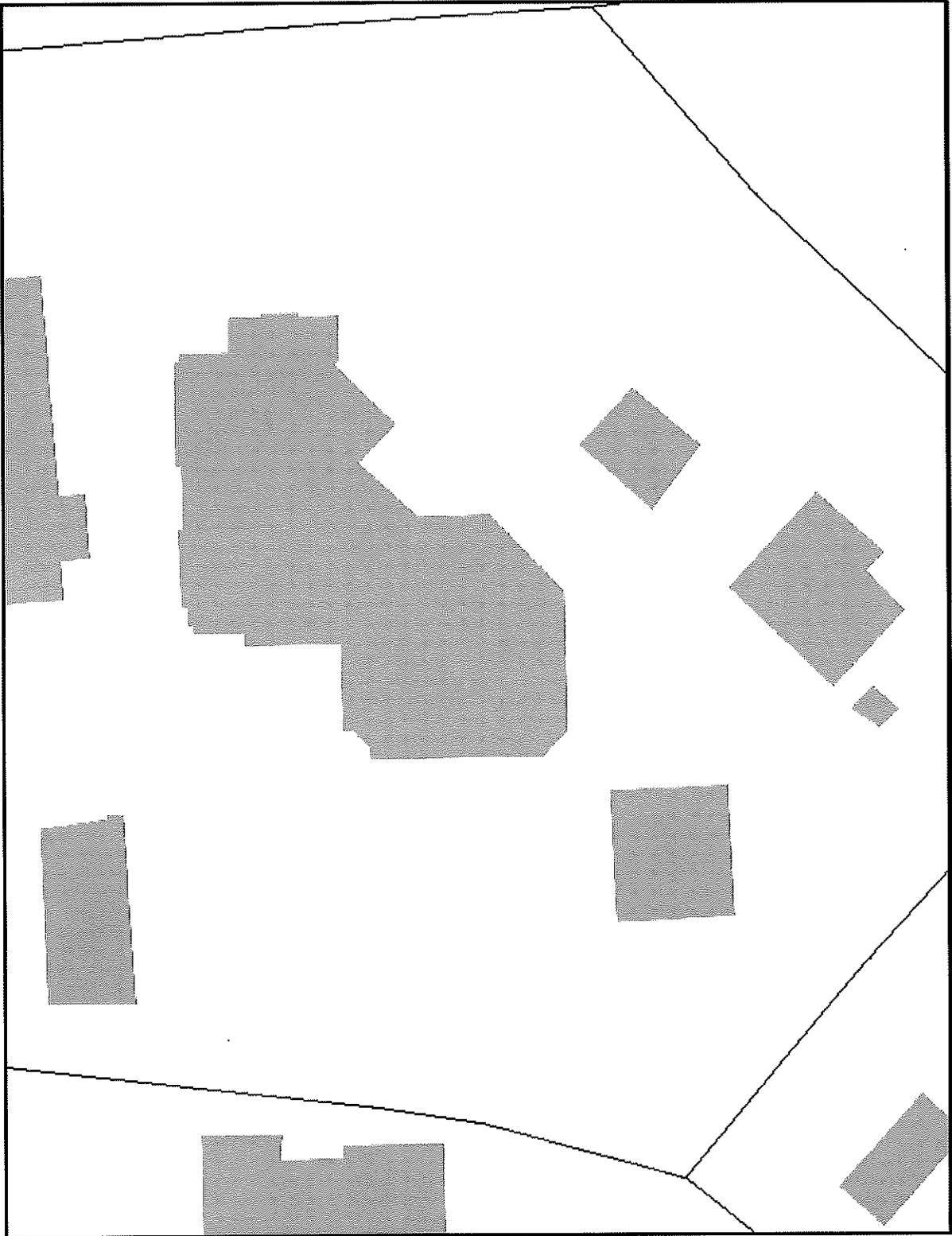
In 1972, Congress passed the Clean Water Act to restore and maintain the quality of the nation's waterways. From that has derived a program where the City of Goodlettsville has been permitted by the State of Tennessee through TDEC (Tennessee Department of Environment and Conservation) to allow water flowing off of the land within the City's limits to reach our creeks and streams.

One of the many programs in place within the City's stormwater program is a good housekeeping approach. Developing, implementing, and maintaining a Stormwater Pollution Prevention Plan (SWPPP) on a municipal level will help improve our local water quality. The primary goal of the stormwater permit program is to improve the quality of surface waters by reducing the amount of pollutants potentially contained in the stormwater runoff.

<b>Stormwater Contact</b>	<b>James Hicks</b>
<b>Phone</b>	<b>615-851-2242</b>
<b>Email</b>	<b>jhicks@goodlettsville.gov</b>
<b>Facility Name:</b>	<b>City of Goodlettsville</b>
<b>Permit Number:</b>	<b>TNS 075345</b>
<b>Date of Coverage:</b>	
<b>Receiving Water:</b>	<b>Tributary to Mansker's Creek</b>

**Site Map**

Showing Fire Hall Facility Buildings



**Identification of Potential Stormwater Pollutants**

- × Pesticides/Fertilizers
- × Cleaning agents
- × Asphalt
- × Paints
- × Vehicle fluids
- × Sand
- × Salt
- × Trash
- × Storage/disposal areas
- × Equipment maintenance
- × Loading/unloading areas
- × Liquid storage tanks
- × Equipment operating areas

List exposed materials that may be potential pollutants:

Area	Material	Method of Exposure



## **BMPs**

Best management practices are implemented to reduce the amount of pollutants in stormwater.

### **Basic BMPs for Employees (Good Housekeeping)**

#### *Goal*

Promote efficient and safe housekeeping practices which keep potential pollutants from either draining into or being transported offsite

#### *Approach*

1. Never dispose of wash-water to storm drain or pavement; it must be disposed of to the sanitary sewer. Wash-water can be defined as any liquid with cleaner with residual dirt and grime. Examples include mop-water, window cleaning water, and rinse water (rinsing after a cleaner was used). Plain (no residual cleaner) rinse water may be used for irrigating plants. Always check with the sewer department supervisor prior to putting an unconventional waste into the sanitary sewer.
2. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to clean or handle a spill, unless the liquid will be completely contained, cleaned up and disposed of to sanitary sewer or offsite as appropriate for the waste type. Do not discharge to storm drains, landscape or off-site. Wastes, salvaged materials and recyclables must be properly contained.
3. Schedule regular cleaning of areas that collect debris to eliminate particulate and residue buildup. This applies to both exterior and interior areas. Keeping interior areas clean prevents the tracking of contaminants outdoors. Add trash containers, when appropriate, to minimize littering.
4. Evaluate safer alternative products for any job that usually uses toxic or hazardous products. For instance, investigate alternative floor and window cleaners (specialized cleaners), general cleaners, adhesives, paints, and lubricants. When available and cost effective, these products should be used.
5. Do not use drains without knowing whether they flow to the sanitary sewer, storm system or self-contained internal sump. Confirm before using drains to ensure proper disposal.
6. Store equipment and supplies under cover whenever possible. Minimizing contact with storm water minimizes contaminants from getting into storm water run-off. Use exterior grade cabinets or containers when exposed to the weather; interior grade cabinets and containers will rust or deteriorate contributing contaminants to storm water run-off.
7. Do not wash vehicles on City property, unless there is a procedure protecting the storm water system by containing and properly disposing of the wash-water and debris.
8. Litter is still a problem; throw all trash in disposal or recycling containers.
9. Always have spill response equipment available near the storage of liquid or hazardous substances.
10. Leaking equipment should be equipped with drip-pans, appropriate clean-up materials, and have proper containment.
11. Any complaints received regarding the stormwater system should be addressed as soon as possible and documented.
12. Annual stormwater training sessions must be documented.

### *Maintenance*

1. Ongoing as improvements are continually being made.
2. Conduct annual stormwater employee training. Each employee in attendance must document their attendance by signing in on a sign-in sheet and the sign-in sheet must include the date the training took place, who facilitated the training, the length of the training (minimum of an hour) and the topics covered.
3. Monthly inspections are performed utilizing the City of Goodlettsville Good Housekeeping Inspection Sheet checklist (see page 13).

### Storm Drains & Catch Basins

#### *Goal*

To prevent the discharge of soil, debris, hazardous waste, and other pollutants that may hinder the designed conveyance capacity or damage stormwater quality or habitat in the storm drain system.

#### *Approach*

1. Inspect storm water drains, grates, inlets, ditches, swales and catch basins on a regular basis. Keep a log of areas and structures inspected and maintained.-
2. Clean storm grates, inlets, drains, ditches, swales and catch basins to remove the accumulation of debris and sediment. Keep a log of the material removed from each structure. Clean structures on a regular basis to keep debris from accumulating.
3. Promptly repair any damaged or deteriorating structure or any other problems that may compromise the integrity of the storm water drainage system. Keep a log of storm water system maintenance.
4. Update facility schematics with any change to the plumbing (to prevent cross connections) or storm water drain system. Discharges allowed according to the City's stormwater ordinance are the only discharges allowed into the City's storm water system.
5. Make sure that employees know that storm drains, catch basins and culverts are part of the storm water collection system; not part of the sanitary sewer system.
6. Affix storm drain labels according to manufacturer's instructions. See Public Works Director to obtain storm drain labels.
7. If filters are used on storm drains, ensure proper installation and maintenance. Document cleaning and maintenance activities.

#### *Equipment*

1. Water source (water tank truck or fire hydrant)
2. Sediment collector (vacuum, etc.)
3. Inflatable device to block flow
4. Containment/treatment equipment for sediment and turbidity if flushing to an open channel

### Trash & Dumpster Management

#### *Goal*

Prevent or reduce the discharge of pollutants to stormwater system or natural streams using effective management of waste materials. Education and training employees & subcontractors; proper material

use; source reduction; tracking waste generation and disposal; proper material storage, recycling, preventing stormwater contact and runoff from waste management areas and good waste disposal procedures. Keep outside areas neat, clean, and orderly.

### *Approach*

#### Solid Waste Management

1. Keep dumpsters, trashcans and recycling bins covered and properly contained, except when filling or emptying. Schedule pickup frequency to keep trash from holding the cover open. Open lids allow contact with storm water, which dissolves and transports contaminants into the storm water system. Open lids also invite pests to spread trash around.
2. Do not put liquids or greases in the trash containers. They should be discarded according to the Sewer Department's specifications.
3. Check that the dumpster or trashcan to ensure it is in good condition, with no holes or accumulation of grime. Trash containers should be leak-free.
4. Regularly inspect the trash enclosure and general area for problems such as trash not in the container and accumulation of grease or food on the ground. Clean the trash enclosure as needed to remove any accumulations of grim and/or general trash.
5. Designate an area for trash collection away from storm drains. This allows problems at the trash container to be corrected before reaching the storm drain or flow offsite.
6. Minimize storage of scrap metal by disposing of it periodically. Cover the stockpile during rain to reduce the release of contaminants.
7. Should problems occur with City-issued trash containers, contact the Solid Waste Supervisor.

#### Hazardous Waste Management

1. Use the entire product before disposing of the container. If the product is wet or moist, allow container to dry prior to disposal. Do not remove the original product label as it contains important safety and disposal information. MSDS information should be consulted for each product that is stored or handled. Employees should be made aware of the safety information.
2. Use appropriate containment devices where the potential for spills exist. Keep hazardous waste in appropriate containers and under cover. Place hazardous waste containers in secondary containment. Do not allow hazardous materials to accumulate on the ground.
3. Keep hazardous and non-hazardous waste separate. Store hazardous materials and wastes in covered containers.
4. Do not mix wastes as this can cause unforeseen chemical reactions.
5. Refer to MSDS book and the HCP (Hazardous Communication Plan) when handling, storing, and using hazardous materials.
6. Check waste management areas for spills and leaks.

## Material & Hazardous Waste Storage

### *Goal*

Prevent or reduce the discharge of pollutants to storm water from material delivery and storage by minimizing the storage of hazardous materials on-site, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

### *Commonly Stored Materials*

1. Sand, salt, rock, and top soil
2. Pesticides and herbicides
3. Fertilizers
4. Detergents
5. Petroleum products
6. Acids, lime, glues, paints, solvents, etc.
7. Spill response materials

### *Approach*

1. Designated areas for material storage are found throughout the complex.
2. Refer to the MSDS binder to follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals.
3. Always store materials and wastes indoors or under cover whenever possible.
4. Minimize storage needs by purchasing smaller amounts of material more frequently and as needed for specific jobs. Stockpiling materials, which often must be stored outside and exposed to storm water, increases the possibility of pollutants flowing offsite.
5. Store chemicals away from doors and out of traffic pathways.
6. Use drip pans (or other containment device) under taps, nozzles, and spouts to catch drips.
7. Transfer the contents of a leaking container promptly to another container; make sure the new container is appropriately labeled. OSHA mandates labeling for all containers. (Refer to Hazardous Communication Plan for labeling instructions.)
8. Always store used parts (i.e., vehicle, electronic, mechanical) under cover to prevent the leaching of any materials into storm water runoff.
9. Stockpiles of gravel, asphalt, sand, salt, top soil, and other raw materials should be stored on a paved surface. The stockpiles should be situated to prevent storm water flowing through the stockpile.
10. Cover stockpiles and put in up-gradient perimeter berms to deflect the storm water. Install down-gradient perimeter berms to prevent sediment and other contaminants from leaving the stockpile area.
11. Conduct preventative maintenance on a routine basis on secondary containment structures, pipes, valves, pumps and other equipment to ensure proper operation and to identify potential leaks.
12. Return equipment and material to their proper storage place after use.
13. Schedule regular cleaning of outside storage areas and yards. Review the stockpiled equipment and supplies (materials). Often there are unusable materials at the back of the storage area. Usable materials should be stored to indicate possible use and to minimize contact with storm water. Unused or unusable material should be removed as soon as possible. Develop a plan to regularly dispose of unneeded materials.

14. Provide regularly-scheduled training for MSDS/HAZMAT/HCP. Document all training. Provide an easily-accessible MSDS binder which also contains a hazardous communication plan and any HAZMAT-related items employees or contractors need to know.

## Vehicle & Equipment

### Fueling

#### *Goal*

Prevent fuel spills and leaks, and reduce their impacts to stormwater by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors. Ensure above-ground storage tanks have correctly functioning secondary containment. This management practice is likely to create a partial reduction in toxic materials and oil and grease.

#### *Approach*

1. Discourage topping-off of fuel tanks to reduce accidental spillage. Post "no topping-off" signs at the fuel islands. Encourage the use of 'hold open latches' on fuel nozzles.
2. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to clean or handle a spill, unless the liquid will be completely contained, cleaned up and disposed of appropriately for the waste type. Do not discharge any liquid to storm drains or offsite.
3. Regularly inspect oil/water separator and sumps; conduct maintenance as indicated by these inspections.

#### *Maintenance*

1. Keep ample supplies of spill cleanup materials on site.
2. Pumps are on a routine monthly and annual inspection and maintenance program which is regulated by the State.

## Washing & Cleaning

#### *Goal*

Prevent or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning by using off-site facilities, washing in designated, contained areas only, eliminating discharges to the storm drain by infiltrating or recycling the wash water, and training employees and subcontractors. This management practice is likely to cause a partial reduction in toxic materials and oil and grease.

#### *Approach*

1. Use designated wash areas to prevent wash water from entering the storm sewer system.
2. Use phosphate-free, biodegradable soaps.
3. Do not use solvents.
4. When cleaning vehicles/equipment:
  - a. Use as little water as possible to avoid having to install erosion and sediment controls for the wash area. High pressure sprayers may use less water than a hose, and should be considered.

- b. Use positive shutoff valve to minimize water usage.
5. Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills. Use the following three-step method for cleaning floors:
  - a. Clean spills with rags or other absorbent materials.
  - b. Sweep floor using dry absorbent material.
  - c. Mop floor. Mop water may be discharged to the sanitary sewer via a toilet or sink.
6. Keep equipment clean; don't allow excessive build-up of oil and grease.
7. Keep drip pans or containers under the areas that might drip.
8. If possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials.

## Leak & Spill Control

### *Goal*

Prevent or reduce the discharge of pollutants to storm water from vehicle leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

### *Approach*

1. Perform fluid removal and changes inside or under cover on paved surfaces.
2. Properly store hazardous materials and waste.
3. Have spill cleanup supplies readily available.
4. Use dry cleanup methods.
5. Make sure incoming vehicles are checked for leaking oil and fluids.

## Maintenance

### *Goal*

Prevent or reduce the discharge of pollutants to stormwater from vehicle maintenance. This BMP is likely to partially reduce sediment, nutrients, toxic materials, oil and grease, and heavy metals.

### *Approach*

1. Perform maintenance using indoor facilities instead of outside whenever possible as to protect the stormwater runoff. If maintenance should be done outside, ensure correct procedures are followed where prevention practices for spills and leaks can be practiced if needed.
2. If an outdoor maintenance area is needed, it should be located on a paved concrete surface in order to facilitate cleanup. Use barriers to prevent stormwater runoff from entering the area.
3. Use a secondary containment such as a drain pan or drop cloth to catch spills or leaks. Keep a drip pan under the vehicle when removing hoses, filters, or other parts.
4. Have an ample supply of cleanup materials where they are readily accessible and properly stored.
5. Clean leaks and other spills with as little amount of water as possible. Use rags for small spills, a damp mop for general cleanup and dry absorbent materials for larger spills.

6. Provide spill containment dikes or secondary containment around stored oil and chemical drums.

## Sanitary Sewer Maintenance

### *Goal*

Prevent or reduce the discharge of pollutants to stormwater system and natural streams from sanitary and septic waste. Provide convenient and well-maintained restroom facilities. Arrange for permanent connections to the sanitary sewer system or schedule for regular service and disposal. This management practice will significantly reduce nutrients, bacteria and viruses, and oxygen demanding substances.

### *Approach*

1. Refer to CMOM Manual on detailed maintenance operations and procedures.
2. The immediate contacts for sewer-related issues are the City Engineer, Engineering Technician, or Sewer Department Supervisor.

### *Inspections*

Monthly inspections occur utilizing the checklist. The original document is submitted to the Engineering Department to keep on file.

## Preventive Maintenance

Preventive maintenance involves the regular inspection, testing, and cleaning of facility equipment and operational systems.

Spill prevention is another method of preventive maintenance. If materials are kept and used properly, this lessens the chances of spills occurring. Should a significant spill occur, document this on the monthly inspection form and the action(s) taken to clean up the spill.

**CITY OF GODDLETTSVILLE  
GOOD HOUSEKEEPING INSPECTION SHEET**

DEPARTMENT: \_\_\_\_\_

WEATHER: \_\_\_\_\_

DATE: \_\_\_\_\_

INSPECTOR: \_\_\_\_\_

<b>GOOD HOUSEKEEPING</b>	<b>N/A</b>	<b>YES</b>	<b>NO</b>	<b>ACTION NEEDED</b>
Storm drain inlets labeled with disks				
Do storm drain grates need to be cleaned or maintained				
Stormwater drainage paths are clear of dirt and debris				
Outside areas are neat and orderly				
Waste receptacles properly contained and covered				
Are vehicles or equipment cleaned at this facility				
Is wash water disposed of into the sanitary sewer system. Filters installed on drains are cleaned/maintained on regular basis. Note when cleaned.				
Spill response materials are available on site				
<b>HAZMAT STORAGE</b>	<b>N/A</b>	<b>YES</b>	<b>NO</b>	<b>ACTION NEEDED</b>
Are vehicles fueled at this location				
Are fuel tanks operating properly				
Do above-ground storage tanks have secondary containment				
Are containment structures or surface slabs liquid tight				
Are hazardous materials stored on site				
Are containers weather-tight, covered or properly contained and stored				
Updated MSDS folder easily accessible Regularly scheduled MSDS/HAZMAT training received and documented. Document hazardous communication plan training.				
<b>OTHER BEST MANAGEMENT PRACTICES</b>	<b>N/A</b>	<b>YES</b>	<b>NO</b>	<b>ACTION NEEDED</b>
Waste materials kept on site are in leak-tight containers				
Leaking equipment equipped with drip pans and proper clean-up supplies				
Wastes, salvaged materials and recyclables are properly contained				
Has facility received storm water complaints? If so, attach documentation.				
Have issue(s) been addressed and documented				
Contractor employee stormwater training and education documented				
Document annual stormwater employee training received				
<b>NOTES:</b>				
Document stormwater, MSDS and HAZMAT training dates, times, length, topics covered and employees who received and facilitated.				

**BUDGET**  
**Fiscal Year**

2016/17

Warren Garrett

CITY OF GOODLETTSVILLE  
 FY 2016-2017 BUDGET WORKSHEET

425-STORMWATER UTILITY

	ACTUAL 2014-2015	BUDGET 2015-2016	PROJECTED THRU 06/30/2016	BUDGET REQUEST 2016-2017
BEGINNING FUND BALANCE	316,005	1,095,971	1,095,971	2,097,847
<b>REVENUES</b>				
425-3-0000-35500 STORMWATER UTILITY FEE	919,895	604,000	1,050,293	900,000
425-3-0000-35700 PENALTIES			28,071	30,000
425-3-0000-36100 INTEREST	1,100	-	2,000	2,000
<b>TOTAL REVENUES</b>	<b>920,995</b>	<b>604,000</b>	<b>1,080,364</b>	<b>932,000</b>
<b>DEPARTMENTAL EXPENDITURES</b>				
425-4-4510-111 SALARIES	31,033	66,976	10,782	146,958
425-4-4510-121 PART-TIME EMPLOYEES	-	10,000	-	-
425-4-4510-140 HEALTH INSURANCE SELF FUNDED	988	12,000	908	-
425-4-4510-141 EMPLOYER'S FICA	2,170	5,889	1,750	11,242
425-4-4510-142 HOSPITAL AND HEALTH INSURANCE	4,709	24,567	906	39,841
425-4-4510-143 RETIREMENT CONTRIBUTION	4,537	10,033	-	22,014
425-4-4510-144 CITY PROVIDED LIFE INSURANCE	190	300	-	-
425-4-4510-249 BILLING AND COLLECTION	7,306	30,000	30,402	30,000
425-4-4510-254 ENGINEERING	-	50,000	3,006	50,000
425-4-4510-261 VEHICLE MAINTENANCE	939	10,000	-	5,000
425-4-4510-264 FUEL EXPENSE	-	5,000	-	4,000
425-4-4510-280 TRAVEL AND EDUCATION	-	2,500	-	4,000
425-4-4510-320 SUPPLIES AND EQUIPMENT	-	10,000	840	10,000
425-4-4510-329 STORM WATER QUALITY	30,146	25,000	17,260	38,500
425-4-4510-900 CAPITAL OUTLAY	59,011	-	12,634	1,624,000
<b>TOTAL STORMWATER EXPENDITURES</b>	<b>141,029</b>	<b>262,265</b>	<b>78,488</b>	<b>1,985,555</b>
<b>NET CHANGE IN FUND BALANCE</b>	<b>779,966</b>	<b>341,735</b>	<b>1,001,876</b>	<b>(1,053,555)</b>
<b>PROJECTED ENDING FUND BALANCE</b>	<b>1,095,971</b>	<b>1,437,706</b>	<b>2,097,847</b>	<b>1,044,292</b>

**P.I.E**  
**Public Information and Education**  
**Plan**

2016/17

Warren Garrett

# Public Information and Education Plan (PIE)

City of Goodlettsville's Stormwater Program

TNS-075345

**PUBLIC WORKS DEPARTMENT  
215 CARTWRIGHT STREET  
GOODLETTSVILLE, TN 37072  
(615) 859-2740 PHONE | (615) 851-4052 FAX  
[WWW.CITYOFGOODLETTSVILLE.ORG](http://WWW.CITYOFGOODLETTSVILLE.ORG)**

REVISED 7/12/2017

# Public Information and Education Plan (PIE)

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## City of Goodlettsville's Stormwater Program

### Introduction

The City of Goodlettsville's public information and education plan is comprised of various components with the goal of educating the citizens on the effects of stormwater pollution and water quality.

### Summary

After years of extensive water sampling testing analysis, the State has determined each stream within Goodlettsville's jurisdiction is impaired with either e.Coli, siltation, or as a result of habitat alterations. Based on these test results and the City's proximity to Nashville, Goodlettsville was charged with implementing a stormwater, or water quality program.

In 2003, the City began its stormwater program and an integral part of this is educating the citizens, developers, and businesses on what can be done to improve the water's quality.

### Established Programs and Continued Goals

#### School-Age/Classrooms

- Host and help facilitate teacher in-service workshops correlating environmental education to the latest State standards.
- Speaking engagements within the classroom, at school events, or at a City facility.
- Cleanup events to assist Scouts earning badges or patches.
- Work alongside Parks Department to incorporate water quality education into their existing programs.
- Stream clean-up Day events.
- Website containing information for teachers, parents, and children.

#### Adults

- Host water-quality/environmental education workshops.
- Offer monthly stormwater meetings.
- Website containing information on suggested best management practices for the home or business.

- Documents and workshops available on chemical application awareness on proper storage, use, and disposal of pesticides, herbicides, fertilizers, oil, household and professional chemicals.
- Public Service Announcements in conjunction with the Cumberland River Compact and the Tennessee Stormwater Association (TNSA).
- Printed materials available at information tables within the City (Public Works, Parks, City Hall, Chamber of Commerce)
- Stream clean-up Day events.
- These events address awareness on the impacts on water quality from general good housekeeping, and HOA and permanent BMPs (post-construction) awareness of the importance of maintenance activities.
- Good housekeeping training for municipal employees on routine basis.
- Hotline ((615) 859-2740) and website reporting for illicit discharges and water quality related issues.

### Developers

- Offer monthly stormwater meetings.
- Website containing information on suggested best management practices for the home or business.
- Public Service Announcements in conjunction with the Cumberland River Compact and the Tennessee Stormwater Association (TNSA).
- Printed materials available at information tables within the City (Public Works, Parks, City Hall, Chamber of Commerce).
- Pre-construction meetings.
- Regular on-site inspections and one-on-one meetings when needed.

### Existing Businesses

- Hot spot/priority area program.
- Offer monthly stormwater meetings.
- Website containing information on suggested best management practices for the home or business.
- Public Service Announcements in conjunction with the Cumberland River Compact and the Tennessee Stormwater Association (TNSA).
- Printed materials available at information tables within the City (Public Works, Parks, City Hall, Chamber of Commerce).

## **Future Programs**

### Goals

- Continue workshop and monthly meetings as scheduled.
- Increase involvement with all age groups.

### Plan

- Develop workshops to meet needs of developers, business owners and home owners.
- Look at larger group projects and programs for school-aged citizens such as City-wide stream clean-up, 100K Tree Day etc.
- Work alongside Planning, Parks, and Codes Departments within the City and also continue working with other stormwater agencies throughout Davidson, Sumner, and Wilson Counties to expand public education opportunities and efforts.
- Follow each project so improvements for future events can be implemented.

### Facilitators

- Public Works Stormwater Coordinator, Inspector, non-profit organizations (e.g. Cumberland River Compact), Austin Peay State University, Western Kentucky University, Middle Tennessee State University, Tennessee Environmental Council.

## Media

### Printed materials

- Brochures
- Flyers
- Forms

### Radio Public Service Announcements

- Through the Cumberland River Compact
- Through the Tennessee Stormwater Association
- The PSAs address awareness on the impacts of our actions on water quality.
- Available on City's website and at *Movies in the Park* events.

### Electronic media (eblast, email, website, texting)

- Utilizing the City's website *Notify Me* feature to generate eblasts, emails, and texts
- City's website contains up-to-date information
- Utilize other media outlets' posting boards to distribute event information

## Newspapers

- Feature article solicitation
- Website posting boards

## **The Process**

Press releases are one-page written statements announcing an event. They are submitted to print, and online media.

Event slides are created in PowerPoint and saved as jpegs and submitted to the cities via Mid Tennessee Stormwater Group. These are one page slides with basic text and graphics.

PSAs created by the Cumberland River Compact and the Tennessee Stormwater Association and are distributed to radio stations throughout the State.

Eblasts/emails are created and sent to a distribution list of citizens interested in receiving information from the City.

Regarding school-aged events, Scout leaders, teachers, in-service coordinators, the environmental education contact at schools, and home school leaders are notified about upcoming events and workshops.

Work with home owners and other associations through meetings and/or newsletters to provide water quality information and upcoming activities.

Conduct workshops with guest speakers to provide information to the development and design communities and offer CEU credits

The City has developed a community advisory panel which consists of various citizens within the community with varied backgrounds and occupations to become involved with the City's stormwater program.

## **Items to Address**

General housekeeping – Provide an annual HHW collection at our convenience center.

## **Judging Effectiveness**

Education and outreach are vital to the success of the City's stormwater/water quality program. Each avenue of distribution – printed materials, website, radio ads, etc. will have quantities associated with them in terms of numbers of items distributed.

Long-term goals of education are to see habits change about how people take care of the environment, to see less litter, to see less illegal dumping, to have improved water quality tests when sampling for macroinvertebrates, e. Coli, chemicals and more.

If the City is not seeing improvements in testing and litter pick-ups, then it will need to re-evaluate the way the information is being distributed and what information is being distributed.



T.M.D.L.

Approved TMDL List

2016/17

Warren Garrett

**Summary of TMDLs, WLAs, & LAs expressed as daily loads for Impaired Waterbodies in the Lower Cumberland Watershed  
(HUC 05130202)**

HUC-12 Subwatershed (05130202_) or Drainage Area (DA)	Impaired Waterbody Name	Impaired Waterbody ID	TMDL [CFU/day]	MOS [CFU/day]	WLAs			LAS [CFU/day/acre]
					WWTFs* [CFU/day]	Leaking Collection Systems [CFU/day]	MS4s [CFU/day/acre]	
0101	Cooper Creek	TN05130202209 – 1000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	8.862 x 10 <sup>6</sup> * Q	8.862 x 10 <sup>6</sup> * Q
	Dry Creek	TN05130202027 – 1000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	3.826 x 10 <sup>6</sup> * Q	3.826 x 10 <sup>6</sup> * Q
	Gibson Creek	TN05130202212 – 1000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	7.727 x 10 <sup>6</sup> * Q	7.727 x 10 <sup>6</sup> * Q
	Neeleys Branch	TN05130202212 – 0100	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.526 x 10 <sup>7</sup> * Q	1.526 x 10 <sup>7</sup> * Q
	Lumsley Fork	TN05130202220 – 0100	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.008 x 10 <sup>7</sup> * Q	1.008 x 10 <sup>7</sup> * Q
0102	Manskers Creek	TN05130202220 – 1000	1.20 x 10 <sup>10</sup> * Q	1.20 x 10 <sup>9</sup> * Q	NA	0	3.697 x 10 <sup>5</sup> * Q	3.697 x 10 <sup>5</sup> * Q
	Manskers Creek	TN05130202220 – 2000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.200 x 10 <sup>6</sup> * Q	1.200 x 10 <sup>6</sup> * Q
	Slaters Creek	TN05130202220 – 0300	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	4.374 x 10 <sup>6</sup> * Q	4.374 x 10 <sup>6</sup> * Q
	Walkers Creek	TN05130202220 – 0200	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	2.979 x 10 <sup>6</sup> * Q	2.979 x 10 <sup>6</sup> * Q
	Browns Creek	TN05130202023 – 1000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	2.070 x 10 <sup>6</sup> * Q	2.070 x 10 <sup>6</sup> * Q
0103	Browns Creek	TN05130202023 – 2000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	2.150 x 10 <sup>5</sup> * Q	2.150 x 10 <sup>5</sup> * Q
	East Fork Browns Creek	TN05130202023 – 0100	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.810 x 10 <sup>7</sup> * Q	1.810 x 10 <sup>7</sup> * Q
	West Fork Browns Creek	TN05130202023 – 0300	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	9.526 x 10 <sup>5</sup> * Q	9.526 x 10 <sup>5</sup> * Q
	Pages Branch	TN05130202202 – 1000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.072 x 10 <sup>7</sup> * Q	1.072 x 10 <sup>7</sup> * Q
	Pages Branch	TN05130202202 – 2000	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.707 x 10 <sup>7</sup> * Q	1.707 x 10 <sup>7</sup> * Q
0105	Cummings Branch	TN05130202010 – 0600	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.433 x 10 <sup>7</sup> * Q	1.433 x 10 <sup>7</sup> * Q
	Drakes Branch	TN05130202010 – 0200	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	1.663 x 10 <sup>7</sup> * Q	1.663 x 10 <sup>7</sup> * Q
	Dry Fork	TN05130202010 – 0300	2.30 x 10 <sup>10</sup> * Q	2.30 x 10 <sup>9</sup> * Q	NA	0	7.594 x 10 <sup>6</sup> * Q	7.594 x 10 <sup>6</sup> * Q

**E.R.P.**

**Enforcement Response Plan**

2016/17

Warren Garrett

# Enforcement Response Plan (ERP)

City of Goodlettsville's Stormwater Program

TNS-075345

**PUBLIC WORKS DEPARTMENT  
215 CARTWRIGHT STREET  
GOODLETTSVILLE, TN 37072  
(615) 859-2740 PHONE | (615) 851-4052 FAX  
[WWW.CITYOFGOODLETTSVILLE.ORG](http://WWW.CITYOFGOODLETTSVILLE.ORG)**

**DEVELOPED 9/2/2010**

**REVISED 7/11/2017**

# Enforcement Response Plan (ERP)

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## City of Goodlettsville's Stormwater Program

### Purpose

The intent of this document is to provide guidance in enforcing the City's existing stormwater management ordinance and to help eliminate illicit discharges to the City's stormwater system.

### Documentation

Stormwater ordinances in place are 18-509 and 18-510.

Construction sites that have not issued an Notice of Termination (N.O.T.) are inspected on a routine basis by both the City and the developer. The City's Inspector is the main contact in charge of routine inspections. The City documents construction site inquiry calls to the office. This is documented within the Call Center software database program.

Construction sites that have issued an N.O.T. are required to submit an annual post-construction long-term maintenance agreement report to the City by July 1. The Inspector maintains these files.

Hot Spot/Priority Areas are chosen based on review utilizing the EPA's Hot Spot Site Investigation Form and are required to conduct quarterly inspections and submit those reports to the Inspector. Hot Spot locations are provided with their self-inspection checklist, a suggested list of Best Management Practices (BMPs) and a letter from the Inspector briefly explaining the process.

Citizens are able to report illicit discharges to the Public Works offices via the hotline, website, email, or telephone call to the office. Once received, they are entered into the Call Center database program and emailed to the appropriate personnel for investigation. Personnel have up to seven (7) days to respond to the inquiry.

Drainage infrastructure Information is placed within the GIS system and maps are created identifying potential areas of concern.

Dumping activities are entered into the Call Center database program and are responded to by the Public Works Department. If possible, waste is gone through to determine person(s) responsible for dumping. Should person(s) responsible be prosecuted, prosecution could fall underneath penalties for violating the stormwater ordinance.

When a complaint is received, the inspector and/or public works supervisor or assigned employee checks on the complaint and addresses it accordingly within seven (7) days. Notes are taken and if the information is within Call Center, the follow-up documentation is entered into the system and/or noted completion.

#### Site Plan Review

Planning Dept. procedure for submittal of Site Plan/Preliminary Master Plan/Final Master Plan

1. Receipt by Planning Dept. of document from specified project engineering company for review and consideration at the published date of the next Planning Commission meeting.
2. A copy of the document/attachment is forwarded to Public Works, Codes, Engineer and Public Works for review.
3. Remaining copies of the document are distributed to staff for review:
  - a. Planning Director
  - b. City Engineer (receives the original stormwater documents attached to document)
  - c. Public Works Director
  - d. Fire Chief
  - e. Codes Director
4. Upon receipt of engineering comments, a staff review meeting is scheduled to discuss outstanding issues of the document relating to all departments.
5. Corrected comments are prepared by the Planning Director and sent to the specified project engineer with a date for resubmittal of the corrected document to the Planning Dept. for final review.
6. Upon receipt of corrected document, the Planning Director will conduct a final review to determine if all outstanding issues have been addressed in accordance with the Goodlettsville Zoning Ordinance and Subdivision Regulations.
7. Copies of the document, any attachments and a staff review report will be delivered to members of the Planning Commission for review prior to the published date of the Planning Commission meeting.

#### Investigation Procedure

Once City personnel receive an inquiry, they have up to seven (7) days to respond. The inquiry is physically inspected to determine the possible nature of the event. Photographs and a report of the event should be kept on file.

Hot Spot/Priority Area determinations occur routinely and on an as-needed basis. Initially, hot spot/priority areas were determined utilizing the EPA's Hot Spot Identification checklist form. Once an area is deemed a hot spot/priority area, they are notified via a letter and/or meeting with the City advising them of such and explaining the procedure to comply. Hot Spot/Priority Areas are to self-inspect quarterly utilizing a checklist provided to them by the City. The Inspector follows up on the documentation

submitted. If documentation raises concerns, the Inspector inspects the property. If the site does not comply, enforcement actions from the stormwater ordinance are in effect.

Dry Weather Screenings occur routinely and on an as-needed basis, photos are taken, and data is entered into the GIS system.

If the City deems necessary, the enforcement section of the stormwater ordinance goes into effect. Follow-up inspections are encouraged to keep tabs on the illicit discharge. Documentation and test results of investigations should include the location(s), date, inspector's name(s), time, parameter(s), sampling result(s), source of flow, etc. As much information that can be obtained should be and be in writing and kept within the Inspector's office.

Should clean-up be required, personnel will advise appropriate City department(s) to assist with clean-up. Hazmat related clean-ups can be handled by (1) the City's fire department, (2) a local environmental clean-up company, and/or (3) TEMA (Tennessee Emergency Management Agency). If materials must be tested, an appropriate testing lab will be consulted. If the source of the illicit discharge can be determined, the responsible party/ies is/are contacted by the City.

Hazardous spills are directed to the City of Goodlettsville Fire Department and they handle the haz-mat emergency per their policy.

#### Enforcement

When the City determines violation of the City's stormwater ordinance has occurred, a notice of violation is issued. Violations are handled in the following order and can invoke a penalty, up to \$5,000 per day, per incident, at any time. The City Manager, Public Services Director, determines/calculates the per incident and daily fine(s):

#### Written Notification

The first step in resolving an issue is to provide written notification via a warning letter or email. Within ten (10) days of the receipt date of the notice, an explanation of the violation and a plan for the satisfactory correction and prevention therefore, to include specific required actions, shall be submitted to the Public Works Department. Submission of a plan does not relieve the discharger of any liability for any violations occurring before, during, or after receipt of the notice of violation.

#### Consent Order

The Administrator is empowered to enter into consent orders, assurances of voluntary compliance or other similar documents establishing an agreement with the person responsible for non-compliance. Such orders will include specific action to be taken by the person to correct the non-compliance within a specific time frame. Consent orders

shall have the same force and effect as either Compliance Orders or Cease and Desist Orders.

#### Show Cause Hearing

The Administrator may order any violator to show cause why a proposed enforcement action should not be taken. Notice shall be served on the person(s) which specifies the time and place for the meeting, the proposed enforcement action, the reason(s) for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served at least ten (10) days prior to the hearing.

#### Compliance Order

The Administrator may issue an order to the violator directing that, following a specific time period, adequate structures, devices, etc. be installed or procedures implemented and properly operated. Orders may also contain such other requirements as might be necessary and appropriate to address the non-compliance issue.

#### Cease and Desist Orders/Enforcement Escalation

The Administrator may issue an order to cease and desist all such violations and direct those persons in non-compliance to (1) comply forthwith or (2) take such appropriate remedial or preventive action as may be needed to properly addresses a continuing or threatened violation, including halting operations and terminating the discharge.

#### Penalties

Any persons committing any act declared unlawful under the City's stormwater ordinance or who fails to comply with any lawful communication or notice to abate or take corrective action by the City of Goodlettsville shall be guilty of a civil offense.

Under the authority provided in Tennessee Code Annotated 68-221-1106 it is declared that any person violating the provisions of this article may be assessed a civil penalty by the City of Goodlettsville of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate offense.

When measuring civil penalties, the Administrator may consider (a) the harm done to the public health or environment (b) whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity (c) the economic benefit gained by the violator (d) the effectiveness of action taken by the violator to cease the violation (e) any unusual or extraordinary enforcement costs incurred by the City of Goodlettsville (f) any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment

In addition to the civil penalty, the City of Goodlettsville may recover (a) all damages proximately caused by the violator to the municipality, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this article, or any other actual damages caused by the violation (b) the cost of the municipality's maintenance of stormwater facilities when the owner of such facilities fails to maintain them as required.

#### Appeals

Any person(s) aggrieved by the imposition of a civil penalty or damage assessment as provided by the above-listed enforcements, may appeal said penalty or damage assessment.

Upon issuance of a citation or notice of violation it shall be conclusive and final unless the accused violator submits a written notice of appeal to the Administrator within ten (10) days of the violation notice being served. If the Administrator does not issue a decision within ten (10) days of the written notice of the appeal, the violation is considered upheld. If the Administration does not reverse the decision, the aggrieved party may appeal to the City of Goodlettsville's Hearing Authority by filing a written request for hearing within ten (10) days of the Administrator's decision on the appeal. The request for hearing shall state the specific reasons why the decision of the Administrator is alleged to be in error.

City of Goodlettsville Hearing Authority is established under Title 18, Chapter 2, Section 18-207 of the Goodlettsville Municipal Code.