



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)

Municipal Separate Storm Sewer System (MS4) Annual Report

1. MS4 INFORMATION

City of Murfreesboro and Middle Tennessee State University TNS075469

Name of MS4 MS4 Permit Number

Robert Haley, III (City) roberthaley@murfreesborotn.gov

Shelia Knight (MTSU) Shelia.Knight@mtsu.edu

Name of Contact Person Email Address

615-848-3200 (City) 615-494-8708 (MTSU)

Telephone (including area code)

Water and Sewer Dept., 220 NW Broad Street MTSU Box 32, Murfreesboro, TN 37132

Mailing Address

Murfreesboro TN 37130

City State ZIP code

What is the current population of your MS4? 109,031 (latest certified figure, 2012)

What is the reporting period for this annual report? From July 1, 2013 to June 30, 2014

2. WATER QUALITY PRIORITIES (SECTION 3.1)

- A. Does your MS4 discharge into waters listed as impaired on TN's most current 303(d) list and/or according to the on-line GIS mapping tool? Yes No
- B. If yes, please attach a list all impaired waters within your jurisdictional area. *See Attachment 1.*
- C. Does your MS4's jurisdictional area contain any waterbodies where a TMDL has been approved for parameters other than pathogens, siltation and habitat alterations? If yes, please attach a list. *See Attachment 1.*
- D. Does your MS4 discharge to any Exceptional TN Waters (ETWs) or Outstanding National Resource Waters (ONRWs)? If yes, please attach a list. *See Attachment 2.* Yes No
- E. Are you implementing additional specific provisions to ensure the continued integrity of ETWs or ONRWS located within your jurisdiction? Yes No

3. PROTECTION OF STATE OR FEDERALLY LISTED SPECIES (SECTION 3.2.1 General Permit for Phase II MS4s)

- A. Are there any state or federally listed species within the MS4's jurisdiction? Yes No
- B. Are any of the MS4 discharges or discharge-related activities likely to jeopardize any state or federally listed species? Yes No
- C. Please attach any authorizations or determinations by U.S. Fish & Wildlife Service on the effect of the MS4 discharges on state or federally listed species.

4. PUBLIC EDUCATION AND PUBLIC PARTICIPATION (SECTION 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 of those pollutants, such as Hot Spots? Yes No

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C. If yes, what are the specific causes, sources and/or pollutants addressed by your public education program?

The City targeted pollutants nutrients, sediment, and trash; absence of streamside vegetation; and the pollutant problem of illicit discharges. Through the UT Ag Extension Office, we helped develop and distribute educational materials to lawncare professionals related to minimizing fertilizer use. Construction program EPSC activities target sediment. Stream clean-ups and general water quality education target, among other things, trash. Field work door to door targeted grass and woody debris left on streets. Through [annual tree-day event](#), 1100 trees were distributed to landowners (mostly riparian) in the Lytle Creek watershed; and as part of the same effort, we mailed letters to 137 riparian property owners informing about improving streamside vegetation. Riparian tree plantings were done at the Stones River National Battlefield. Field contacts (e.g. complaint response) and web site material target illicit discharges.

During FY 2013-2014, [MTSU](#) targeted several pollutants such as Illicit Discharges, Hydrocarbon Pollutants, Trash, Bacteria & Riparian. Employees were targeted with online training & individual training on an as needed basis. Events such as campus & detention pond cleanups were coordinated to help remove trash from ending up in the streams. Students also volunteered for riparian tree plantings throughout the city & learned about streamside buffers & their benefits.

For additional events and information, see attached tables showing Targeted Education of MTSU and the City.

D. Note specific successful outcome(s) (NOT tasks, events, publications) fully or partially attributable to your public education program during this reporting period.

- 250 trees planted at Stones River National Battlefield and 525 along Garrison Creek (impaired stream)
- 4025 pounds trash and junk removed from stream/wetland areas
- 1100 trees distributed to mostly riparian landowners in Lytle Creek watershed
- 7,571 general ed. contacts (student classes, field days, webinar, workshop) by City and MTSU
- Additional 456 contacts in targeted education and participation (stream clean-up, riparian tree planting, nutrient education)
- Placement of silt fence and other epsc controls on construction projects
- Installation of post-construction runoff controls in new development, including green infrastructure such as bioretention, swales and pervious concrete/paver blocks
- Rain barrel workshop educated 24 persons and delivered 6 rain barrels

Selected other activities, publications, etc.

- 137 letters with streamside management guide mailed to riparian property owners
- 2189 brochures and/or print media distributed at events, classrooms, presentations
- Creation of print media piece, Pollution Prevention for Surface Cleaning
- 911 stormwater promotional items given out at events
- 73 MTSU WMOT Radio PSAs & 343 Murfreesboro Channel 3 TV PSAs played
- 85 MTSU student volunteers
- 656 participants signed up for volunteer list
- Collected contact information for 46 homeowners associations
- City Parks & Rec. dept. surface water-related classes: 910 participants, 34 sessions, total 3312 education-service units
- Project WET/Discovery Center contact with 5689 children, youth and adults; Project WET training of 46 Rutherford County teachers

E. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your stormwater program? (City W.S. Board)

Yes

No

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- F. How do you facilitate, advertise, and publicize public involvement and participation opportunities?
MTSU advertises on their website (www.mtsu.edu/stormwater), the MTSU Master Calendar (available on www.mtsu.edu), emails to MTSU Subscriber list (sent to all staff, faculty & temp employees), emails to all Volunteers in stormwater database (over 900+ signed up at prior events), emails & promotion through MTSU News & Media, posting of flyers across campus.
City of Murfreesboro maintains a set of stormwater web pages, with the lead page showing most recently added materials. Announcements of public meetings (such as monthly Water and Sewer Board meetings, City Council meetings at which certain stormwater issues are presented, discussed and decided) are published in local newspaper, scrolled on the City TV station and posted on the City's web calendar. Depending on nature of opportunities, press releases are used to advertise and tell the story of the water quality programs; and similarly the City's Facebook page is used to post announcements. When the City is drafting new stormwater ordinances, public hearings are scheduled and stakeholders are notified of the hearings.
- G. Do you have a webpage dedicated to your stormwater program? Yes No
If so, what is the link/URL: MTSU - www.mtsu.edu/stormwater
City of Murfreesboro - <http://www.murfreesborotn.gov/index.aspx?NID=288>
- H. Are you tracking and maintaining records of public education, outreach, involvement and participation activities? Attach a summary of these activities. *See Attachment 3, General Education of MTSU & the City of Murfreesboro.* Yes No

5. ILLICIT DISCHARGE DETECTION AND ELIMINATION (SECTION 4.2.3)

- A. Have you completed a map of all outfalls and receiving waters of your storm sewer system? Yes No
- B. Have you completed a map of all storm drain pipes of storm sewer system? Yes No
- C. How many outfalls have you identified in your system? City: 633* MTSU: 12
* No. of outfalls reduced from last year's report because we consolidated cases of multiple "outfalls" entering detention ponds as single outfalls from the ponds.
- D. Have any of these outfalls been screened for dry weather discharges? Yes No
- F. What is your frequency for screening outfalls for illicit discharges? City: yearly MTSU: yearly
City yearly screens a portion of total number of outfalls. For FY 2013-14, 113 outfalls screened: 35 EFSR VSA; 60, Sinking Creek IDDE; 18 structures IDDE hot spot screening
- G. Do you have an ordinance that effectively prohibits illicit discharges? (not an ordinance but a policy for MTSU campus) Yes No
- H. During this reporting period, how many illicit discharges/illegal connections have you discovered (or been reported to you)? 4: Two, equipment washing; one, indeterminate; one, pavement washing. Nine potential illicit discharges were investigated; four confirmed, all transient in duration.
- I. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated? 3

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6. CONSTRUCTION SITE STORMWATER RUNOFF (SECTION 4.2.4)

A. Do you have an ordinance or adopted policies stipulating:

Erosion and sediment control requirements? Yes No

Other construction waste control requirements? Yes No

Requirement to submit construction plans for review? Yes No

MS4 enforcement authority? Yes No

B. How many active construction sites disturbing at least one acre were there in your jurisdiction this reporting period? 140

C. How many of these active sites did you inspect this reporting period? 140

D. On average, how many times each, or with what frequency, were these sites inspected 1/month
(e.g., weekly, monthly, etc.)?

E. Do you prioritize certain construction sites for more frequent inspections? Yes No

If Yes, based on what criteria? a) subdivision developments; b) response to complaint; and c) the City's capital improvement projects

7. PERMANENT STORMWATER CONTROLS (SECTION 4.2.5)

A. Do you have an ordinance or other mechanism to require:

Site plan reviews of all new and re-development projects? Yes No

Maintenance of stormwater management controls? Yes No

Retrofitting of existing BMPs with green infrastructure BMPs? Yes No

B. What is the threshold for new/redevelopment stormwater plan review? (e.g., all projects, projects disturbing greater than one acre, etc.) All new and re-development projects are reviewed with respect to stormwater management. Certain of those are subject to our permanent stormwater control standards, those being projects on lots of one acre or more (or part of a common plan of development of one acre or more) and that add a net of 10,000 square feet of impervious surface.

C. Have you implemented and enforced performance standards for permanent stormwater controls? See <http://www.murfreesborotn.gov/DocumentCenter/View/416>. Yes No

D. Do these performance standards go beyond the requirements found in Section 4.2.5.2 and require that pre-development hydrology be met for:

Flow volumes Yes No

Peak discharge rates Yes No

Discharge frequency Yes No

Flow duration Yes No

E. Please provide the URL/reference where all permanent stormwater management standards can be found.

<http://www.murfreesborotn.gov/index.aspx?nid=498>

F. How many development and redevelopment project plans were reviewed for this reporting period? 213; of which 101 were subject to the City's post-construction/permanent runoff treatment standards

G. How many development and redevelopment project plans were approved? 82
82 refers to no. of land disturbance permits issued 2013-14 to projects that are post-construction regulated.

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- H. How many permanent stormwater management practices/facilities were inspected? 8
- I. How many were found to have inadequate maintenance? 1
- J. Of those, how many were notified and remedied within 30 days? (If window is different than 30 days, please specify) 1
- K. How many enforcement actions were taken that address inadequate maintenance? 0
- L. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance? Yes No
- M. Do all municipal departments and/or staff (as relevant) have access to this tracking system? Yes No
- N. Has the MS4 developed a program to allow for incentive standards for redeveloped sites? Yes No
- O. How many maintenance agreements has the MS4 approved during the reporting period? 22 rec'd; 17 recorded

8. CODES AND ORDINANCES REVIEW AND UPDATE (SECTION 4.2.5.3)

- A. Is a completed copy of the EPA Water Quality Scorecard submitted with this report? Yes No submitted with a previous year's report
- B. Include status of implementation of code, ordinance and/or policy revisions associated with permanent stormwater management. No significant changes in past year.

9. STORMWATER MANAGEMENT FOR MUNICIPAL OPERATIONS (SECTION 4.2.6)

-- MTSU --

- A. Have stormwater pollution prevention plans (or an equivalent plan) been developed for:
- All parks, ball fields and other recreational facilities Yes No
- All municipal turf grass/landscape management activities Yes No
- All municipal vehicle fueling, operation and maintenance activities Yes No
- All municipal maintenance yards Yes No
- All municipal waste handling and disposal areas Yes No
- B. Are stormwater inspections conducted at these facilities? Yes No
1. If Yes, at what frequency are inspections conducted? yearly
- C. Have standard operating procedures or BMPs been developed for all MS4 field activities? (e.g., road repairs, catch basin cleaning, landscape management, etc.) Yes No
- D. Do you have a prioritization system for storm sewer system and permanent BMP inspections? (yes, for BMP inspections twice a year) Yes No
- E. On average, how frequently are catch basins and other inline treatment systems inspected? 1/year
- F. On average, how frequently are catch basins and other inline treatment systems cleaned out/maintained? 1/year
- G. Do municipal employees in all relevant positions and departments receive comprehensive training on stormwater management? Yes No
- H. If yes, do you also provide regular updates and refreshers? Yes No

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If so, how frequently and/or under what circumstances? Annual or as needed

-- CITY --

- A. Have stormwater pollution prevention plans (or an equivalent plan) been developed for:
- | | | |
|---|------------------------------|--|
| All parks, ball fields and other recreational facilities | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal turf grass/landscape management activities | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal vehicle fueling, operation and maintenance activities | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal maintenance yards | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal waste handling and disposal areas | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
- B. Are stormwater inspections conducted at these facilities? Yes No
1. If Yes, at what frequency are inspections conducted?
 1/yr (vehic.;waste); 1/2 yrs (yards); 1/5 yrs (parks, grounds)
- C. Have standard operating procedures or BMPs been developed for all MS4 field activities? (e.g., road repairs, catch basin cleaning, landscape management, etc.) Yes No
- D. Do you have a prioritization system for storm sewer system and permanent BMP inspections? (Storm system: wet weather inspec., historical conditions; BMP, 1/yr) Yes No
- E. On average, how frequently are catch basins and other inline treatment systems inspected? Area drains/street inlets are checked on rainy days, for identifying dysfunctional drainage and need for repair; avg. across the city these drains are checked each 1-2X/year. Pipes are checked and cleaned on an approx. 1/5-7 year schedule.
- F. On average, how frequently are catch basins and other inline treatment systems cleaned out/maintained? Varies by frequency of issues (e.g., frequency of complaints or observed blockages/debris); 1/5 year overall average. Ditches and earthen channels cleaned out/maintained as requested by inspectors or public upon observing drainage restrictions.
- G. Do municipal employees in all relevant positions and departments receive comprehensive training on stormwater management? Yes No
- H. If yes, do you also provide regular updates and refreshers? Yes No

If so, how frequently and/or under what circumstances? 1/two years

10. STORMWATER MANAGEMENT PROGRAM UPDATE (SECTION 4.4)

- A. Describe any changes to the MS4 program during the reporting period including but not limited to:
- Changes adding (but not subtracting or replacing) components, controls or other requirements (Section 4.4.2.a).
 n/a
- Changes to replace an ineffective or unfeasible BMP (Section 4.4.2.b). n/a
- Information (e.g. additional acreage, outfalls, BMPs) on program area expansion based on annexation or newly urbanized areas. Acreage annexed, 1179 acres. Additional outfalls, a reduction as a result of consolidating outfalls into ponds, as noted above. Permanent stormwater control sites mapped this year, 19; mapped to date, 97
- Changes to the program as required by the division (Section 4.4.3). n/a

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11. EVALUATING/MEASURING PROGRESS

- A. What indicators do you use to evaluate the overall effectiveness of your Stormwater Management Program, how long have you been tracking them, and at what frequency? Note that these are not measurable goals for individual BMPs or tasks, but large-scale or long-term metrics for the overall program, such as in-stream macroinvertebrate community indices, measures of effective impervious cover in the watershed, indicators of in-stream hydrologic stability, etc.

Indicator	Began Tracking (year)	Frequency	Number of Locations
Example: E. coli	2003	Weekly April–September	20
Regulatory buffer zones along streams	2007	Annually	132 parcels/59.4 acres/35-50 feet wide, total as of 6/2014
Visual stream assessments	2008	Annually	1 segment (Sinking Cr., 5.5 miles) assessed 2014; out of total 8 watersheds and 48 total segments/reaches in city
E.coli	2010	Varies	80 samples at 40 locations 2013-14
Street sweeper debris (Street Dept.)	2006	Monthly	City wide, 943 tons in 2013-14
Storm sewer cleaning (MWSD)	2008	Weekly	City wide by watershed and hot spots 58 cubic yds in 2013-14; 244,957 linear feet
DRIP program (drainage improvement/rehab)	2012	Weekly	164 of which 124 are resolved; 83 of 164 performed by Street Division (in-house)
Capital projects	2012	Annually	Pennington Drive repair; Hobgood School pervious pavers; various stream studies. (See figure below for CIP costs.)

- B. Provide a summary of data (e.g., water quality information, performance data, modeling) collected in order to evaluate the performance of permanent stormwater controls installed throughout the system. This evaluation may include a comparison of current and past permanent stormwater control practices. 97 regulated, permanent stormwater control systems in place and mapped. We do not have instream water quality information that has been related to these structures, nor performance data or modeling. We do have record of stream buffer length and acreage; and correlating stream buffers with stream monitoring, including sampling of water quality and macroinvertebrates, we find cooler water temperature in buffered segments and lower dissolved oxygen levels in daytime.

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12. ENFORCEMENT (SECTION 4.5)

A. Identify which of the following types of enforcement actions you used during the reporting period, indicate the number of actions, the minimum measure (e.g., construction, illicit discharge, permanent stormwater control) or note those for which you do not have authority:

Action	Construction	Permanent Stormwater Controls	Illicit Discharge	Authority?	
Deficiency correction notices	53	0	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Notice of violation	#0	#0	#0	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Administrative fines	#0	#0	#0	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Stop Work Orders	#0	#0	#0	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Civil penalties	#0	#0	#0	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Criminal actions	#0	#0	#0	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Administrative orders	#0	#0	#0	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Other	#	#0	#0		

B. Do you use an electronic tool (e.g., GIS, data base, spreadsheet) to track the locations, inspection results, and enforcement actions in your jurisdiction? Yes No

B. What are the 3 most common types of violations documented during this reporting period? Construction EPSC and paperwork violations; washwaters discharged to storm sewer; yard waste placed in storm gutter.

13. PROGRAM RESOURCES (OPTIONAL)

A. What was your annual expenditure to implement the requirements of your MS4 NPDES permit and SWMP this past reporting period? City: \$1,273,635 + \$1,693,962 capital improvement projects MTSU: \$139,000

B. What is next year's budget for implementing the requirements of your MS4 NPDES permit and SWMP? City: \$2,003,850 operating budget + \$4,300,000 capital projects MTSU: \$141,000

C. Do you have an independent financing mechanism for your stormwater program? Yes(City) No (MTSU)

D. If so, what is it/are they (e.g., stormwater fees), and what is the annual revenue derived from this mechanism?
Source: Stormwater utility fee Amount \$2,750,000

E. How many full time employees does your municipality devote to the stormwater program (specifically for implementing the stormwater program vs. municipal employees with other primary responsibilities that dovetail with stormwater issues)? City: 9 MTSU: 2.5

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F. Do you share program implementation responsibilities with any other entities? Yes No

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
MTSU/City M'boro	Education and Public Participation	Memorandum of Understanding/Contract
Rutherford County	Project WET education in County and City schools	Interagency contract; bi-annual meetings

G. Please attach a copy of your Organizational Chart. *Attachment 4, charts for Murfreesboro and MTSU.*

14. CERTIFICATION

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

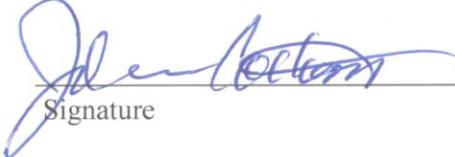
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage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

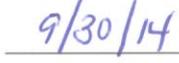

 Printed Name and Title (Murfreesboro)
 Shane McFarland, Mayor


 Signature


 Date


 Printed Name and Title (MTSU)
 John Cothran, Vice President


 Signature


 Date

Annual reports must be submitted in accordance with the requirements of Section 5.4. (Reporting) of the permit. Annual reports must be submitted to the appropriate Environmental Field Office (EFO) by September 30 of each calendar year, as shown in the table below:

EFO	Street Address	City	Zip Code	Telephone
Nashville	711 R S Gass Boulevard	Nashville	37216	(615) 687-7000

Attachment 1 to 2013-14 MS4 annual report for Murfreesboro, Tennessee and MTSU
 Question no. 2., Water Quality Priorities, lists of impaired waters and TMDL waters

B. If MS4 discharges into waters listed as impaired on most current 303(d) list and/or according to on-line GIS mapping tool, please attach a list of all impaired waters within your jurisdiction. C. If MS4 area includes any waterbodies where a TMDL has been approved for parameters other than pathogens, siltation and habitat alteration, please attach a list.

Waterbody I.D. #	List of impaired waters per TDEC Proposed Final Year 2012 303(d) list	Cause/TMDL Priority	Is MS4 a source per 303(d) list?	Approved TMDL Yes/No	MS4 Assigned to WLA Yes/No	
					Yes/No	Amount (reductions)
TN05130203018_0100	Sinking Creek, 5.5 miles	Alteration in stream-side or littoral vegetative cover/L	No	No	No	--
		Escherichia coli/na	Yes	Yes	Yes	75%
TN05130203018_2000	WF Stones River, 1.3 miles (u/s of I-840 to Sinking Creek)	Nitrate+Nitrite/M	No	No	No	--
"	"	Total phosphorus/M	No	No	No	--
"	"	Loss of biological integrity due to siltation/L	No	No	No	--
TN05130203018_3000	WF Stones River, 5.1 miles (Sinking Creek to Lytle Creek)	Loss of biological integrity due to siltation/L	Yes	No	No	--
TN05130203022_1000	Lytle Creek, 8.9 miles (mouth to Lees Spring Branch)	Alteration in stream-side or littoral vegetative cover/na	Yes	Yes	No	--
"	"	Loss of biological integrity due to siltation/na	Yes	Yes	Yes	38%
"	"	Escherichia coli/na	Yes	Yes	Yes	23%, lower 49%, mid 10%, upper
TN05130203022_0200	Lees Spring Branch, 1.1 miles (mouth to headwaters)	Alteration in stream-side or littoral vegetative cover/na	No	Yes	No	--
"	(A short section of stream is within Murfreesboro city limits.)	Loss of biological integrity due to siltation/na	No	Yes	No	--
TN05130203022_0100	Town Creek, 0.13 miles (unnamed trib to Lytle Creek)	Low dissolved oxygen/na	Undetermined source	Yes	--	--
"	"	CBOD5	--	Yes	Yes	1061 lbs/yr
"	"	Nitrogen	--	Yes	Yes	534 lbs/yr
"	"	Total Phosphorous	--	Yes	Yes	113 lbs/yr
"	"	Escherichia coli/na	Undetermined source	Yes	Yes	52%
TN05130203023_0310	Bear Branch, 3.5 miles (Dry Branch to headwaters)	Alteration in stream-side or littoral vegetative cover/na	No	Yes	No	--
"	"	Loss of biological integrity due to siltation/na	No	Yes	Yes	58%
"	"	Nutrients/na	No	Yes	--	--
"	"	Nitrogen/na	No	Yes	Yes	8019 lb/yr
"	"	Total Phosphorous/na	No	Yes	Yes	1699 lb/yr
TN05130203023_0210	Garrison Creek, 0.37 miles (formerly Big Ditch) (mouth to Lascassas Hwy. bridge)	Alteration in stream-side or littoral vegetative cover/na	Yes	Yes	No	--
"	"	Physical Substrate Habitat Alteration/na	Yes	Yes	No	--
"	"	Loss of biological integrity due to siltation/na	Yes	Yes	Yes	57%

Impaired waters data from TDEC's [Draft Year 2014 303\(d\) List](#). Final TMDLs for Stones River Watershed include: a.) siltation and habitat alteration, 10/31/2002; b.) low dissolved oxygen and nutrients, 5/16/2008; and c.) E-coli, 6/19/2012.

The Known Exceptional Tennessee waters and Outstanding National Resource Waters Streams within Urban Growth Boundary of Murfreesboro

<http://www.tn.gov/environment/water.shtml>

The Division of Water Pollution Control has compiled the list of waters that follows based on the characteristics of Exceptional Tennessee Waters and Outstanding National Resource Waters set forth in the regulation by the Tennessee Water Quality Control Board. In general, these are waterbodies with good water quality, important ecological values, valuable recreational uses, and outstanding scenery. Wherever possible, the Division has utilized objective measures to apply these characteristics and the basis for each listing is provided.

The following factors should be considered:

1. The list will be updated regularly and does not include waterbodies that the division has not evaluated. The fact that a waterbody does not appear on this list by name does not preclude the possibility that it may be high quality.
2. In some cases, only a portion of a waterbody is considered high quality. The extent of each listing is provided.
3. This compilation of waterbodies is based on the most recent information obtained by the division and may be reconsidered upon submittal of further information.

HUC	Watershed Name	Waterbody	County	Description	Basis for Inclusion	From Lat	To Lat	From Long	To Long	Inclusion Date
5130203	Stones	Bryant Branch	Rutherford	Portion in Long Hunter SP.	Long Hunter State Park	36.0813	36.0894	-86.5196	-86.5144	
5130203	Stones	Dry Branch	Rutherford	Portion in Overbridge SNA.	Overbridge SNA	35.8482	35.844	-86.2781	-86.2897	
5130203	Stones	West Fork Stones River	Rutherford	From Panther Creek to headwaters.	Exceptional biological diversity. WPC ecoregion reference stream for 71i.	35.7444	35.647	-86.4335	-86.438	APR-10-2003
5130203	Stones	Hoover Swamp Black Fox Wetland	Rutherford	Hoover Swamp area of Black Fox Wetland.	Scored 80 (exceptional category) on TN Rapid Assessment for Wetlands.	35.8139		-86.3603		
5130203	Stones	Bear Branch	Rutherford	From Dry Branch to origin.	State endangered Blackfoot Quillwort.	35.9153	35.8735	-86.3671	-86.3667	NOV-01-2007
5130203	Stones	Sinking Creek	Rutherford	From unnamed tributary at Sulphur Springs Road to origin.	State endangered Sessile Water-Speedwell.	35.883	35.846	-86.3989	-86.372	NOV-07-2007
5130203	Stones	East Fork Stones River	Rutherford	From Cripple Creek to unnamed tributary near Halls Hill.	State threatened Water Stitchwort.	35.8807	35.8746	-86.2644	-86.2366	NOV-09-2007
5130203	Stones	West Fork Stones River	Rutherford	From Sinking Creek to Lytle Creek.	State threatened Water Stitchwort.	35.9013	35.855	-86.4237	-86.4139	NOV-09-2007
5130203	Stones	West Fork Stones River Unnamed Tributary	Rutherford	From West Fork Stones River to Origin	State threatened Yellow Sunnybell	35.9546	35.9515	-86.4557	-86.4468	NOV-13-2007
5130203	Stones	West Fork Stones River Unnamed Tributary	Rutherford	From West Fork Stones River to origin.	State threatened Yellow Sunnybell, Sunnybell Cedar Glade State Natural Area.	35.9671	35.9681	-86.4563	-86.4422	NOV-13-2007
5130204	Harpeth	Puckett Branch	Rutherford	From Concord Creek to State Highway 99.	State endangered Willow Aster	35.7441	35.7337	-86.595	-86.5876	APR-23-2009

Z:\engineering\Project Files\Stormwater\2014\14021 - Stormwater Annual Report 2014\Individual application documents (2014)\sa2, Attachment 2, Exceptional waters and Outstanding National Resource Waters (2014).docx

Murfreesboro-MTSU Yr 3, 2013-14, General Education

Date	Event	# Participants	# Education Materials Distributed	# signed up for mailing list for volunteer opportunities	Trees Given Out or Planted	#s of Trash Removed	# Promotional Items
6/28/2014	SRWA Annual Boat Day	258 Citizens	9 'Rain Barrel' brochures; 24 'Be Aware' fact cards; 19 'SRWA watershed maps; 10 'Old Fort' brochures; 9 'Waterfront' brochures; 4 'Homeowner' brochures; 25 'Discover the Waters' booklets;	9			
4/26/2014	City of Mboro Earth Day	1500 Citizens	12 "Be Aware" brochures, 25 "Waterfront property" brochures, 21 "Homeowner" brochures, 15 "Old Fort Park" brochures, 18 "Stones River Watershed" brochures, 14 "Rain Barrel" brochures	39			120 Leaf/Refuse bags, 280 promotional itms (50 stormwater bottles, 50 stormwater pens, 50 stormwater balls, 30 stormwater bags, 100 Earth Day shirts)
4/22/2014	MTSU Earth Day Celebration		18 "Waterfront Property" brochures, 22 "Rain Barrel" brochures, 5 "Be Aware" brochures	26			35 Promotional items (9 Stormwater bags, 6 stormwater pens & 20 stormwater bottles)
5/12/2014	Globe - Creeks to Classrooms (Hobgood, Discovery School, Central Magnet & Black Fox Elementary Schools)	150 Students, 7 teachers	150 "Discover the Waters of TN" booklets, 7 "Old Fort Park" brochures, 7 "Rain Barrel" brochures, 7 "Stones River Watershed" brochures, 7 "Waterfront Property" brochures, 7 activity posters				7 stormwater bottles, 7 stormwater bags
5/8/2014	Oaklands Outreach	500 students					
5/28/2014	Oaklands Outreach	156 students					
5/29/2014	Oaklands Outreach	193 students					
10/4/2013	Oaklands Outreach	700 students	10 "Be Aware" fact cards, 6 "Waterfront Property" brochures and 6 "Stones River Watershed" brochures	6			
annually	Rutherford Co Schools- outreach totes	50 teachers, 1102 students; 11 schools;	A Total of 1152 Discover the Waters of TN booklets distributed				
annually	Public Service Announcements						Total 416 PSAs (343 TV Ch 3, 73 Radio WMOT)
7/16/2013	Rain Barrel Workshop	24 citizens	250 'Discover' books to Mimi Kiesling for outdoor classroom				
5/10/2014	Stones Throw Away cleanup along Greenway system	132 citizens				750 lbs trash, +tires, metal	
5/6/2014	Rotary Club Presentation	65 citizens					
TOTALS		2858 Elementary Students & Teachers	1979 Volunteers/Public	80		750 lbs trash, +tires, metal	

City of Murfreesboro - Targeted Education, Yr 3, 2013-14

Date	Event	# of Participants	# of People signed up for mailing list for volunteer opportunities	# of Brochures	#s of Trash Removed	Trees Given Out or Planted	Pollutants Targeted	Additional Info
9/17/2013	Annual Meeting for Stormwater Permit	6 citizens						
4/5/2014	Stones River Battlefield tree planting / invasives removed;	25 volunteers and 6 employees; 174 project hours			1368 invasive shrubs removed; 1+ acre of area	250 trees planted;		
3/11/2014	Sinking Creek Wetland cleanup	33 volunteers +			2200 lbs trash removed + 5 tires 2 shopping carts, wood and metal			
3/1/2014	Garrison Creek Tree Planting/ 10k Tree Day	80 volunteers, 2 TEC and 4 staff; 301 total project hours			920 lbs trash removed + metal, chair and wood	525 trees planted; 5.23 acres		
4/12/2014	Annual Tree Day	49 citizens	137 letters to citizens, 32 "Waterfront Property" brochures, 27 "Be Aware" fact cards			1100 trees distributed		
9/16/2013	Yard Waste Door Hanger Outreach	48 residences	79 door hangers distributed				Initial complaint about grass in street	
2/5/2014	UT Ext Outreach - Commercial Hort Applicators Training	66 participants						
2/8/2014	UT Ext Outreach - Healthy Veg Gardens Meeting	53 participants						
2/18/2014	UT Ext Outreach - Weed Control Clinic	11 participants						
TOTALS		371 Volunteers & Public; 12 local partners and staff	137 letters to citizens, 32 "Waterfront Property" brochures, 27 "Be Aware" fact cards, 79 door hangers		1368 invasive shrubs removed; 3120 lbs trash	775 trees planted, 1100 trees distributed		

MTSU - Targeted Education, Yr 3, 2013-14

Date	Event	# Participants	# Brochures	# signed up for mailing list for volunteer opportunities	Trees Given Out	#s of Trash Removed	Outcome(s)
3/27/2014	Environmental Science Class Presentation	7 students, 1 faculty	8 "Be Aware" fact cards, 8 bags, 7 water bottles & 8 pens handed out				
9/13/2013	Environmental Science Class Presentation	20 students, 1 faculty	20 "Be Aware" fact cards				
9/3/2013	Environmental Science Class Presentation	14 students, 1 faculty	15 "TDEC guide to TN Watersheds" brochure, 15 "TDEC water pollution" flyer, 15 "Waterfront Property" brochure, 15 "SRWA Watershed map", 15 Energy Services handout, 15 bags, 15 water bottles				
2/20/2014	MTSU Health & Wellness Fair		1 "Waterfront Property" brochures, 41 "Be Aware" fact cards, 8 water bottles, 7 pens	84			
10/28/2013	MTSU Campus Cleanup	14 students				35 lbs trash removed	
4/8/2014	MTSU Campus Cleanup	23 students				60 lbs trash removed	
07/01-06/30/14	MTSU Customs (8 events)		61 bags, 169 bottles, 119 pens, 57 "Waterfront Property" brochures, 38 "Be Aware" fact cards	302			
9/3/2013	MTSU Volunteer Fair		20 water bottles, 10 pens, 11 balls, 4 bags, 14 "Be Aware" fact cards, 24 "Waterfront Property" brochures	61			
4/5/2014	MTSU Big Event	7				60 lbs of trash	
4/24/2014	MTSU Prescription Drug Take-Back Event					58 lbs of prescription drugs taken back	
	MTSU EH&S Stormwater Training	2731 staff					
	TOTALS	85 MTSU Students ; 2734 MTSU Faculty & Staff		447		155 lbs of trash removed, 58 lbs of prescription drugs	

City of Murfreesboro—Organization Chart

Showing different departments involved in stormwater program management (key departments)

Legislative Body

Shane McFarland, Mayor; Doug Young, Vice Mayor; Toby Gilley, Madelyn Scales Harris
Rick LaLance, Eddie Smotherman, Ron Washington

Prepares ordinances; reviews and advises on legal matters in board and council agendas; reviews contracts; advises re: risk and insurance

City Recorder/City Treasurer
Melissa Wright

City Manager
Robert J. Lyons

City Judge
Ewing Sellers

City Attorney
Susan McGannon

Issues land disturbance and building permits; enforces certain stormwater-related codes, including homebuilding erosion/sediment control; conducts building permit plans review meetings

Assistant City Manager
James Crumley

Reviews construction plans for new development for compliance with eng. standards, incl. review for compliance with post-construction stormwater quality standards; administers land disturbance permit (LDP) program and site inspections; responds to drainage complaints/ problems. Street Division (Raymond Hillis) performs maintenance and repair of storm drainage structures and ditches; respond to and correct drainage problems and complaints; street sweeping; spill response (e.g., cleaning roadway); mowing vegetated right-of-way and stormwater drainage easements

Airport Manager
Chad Gehrke

Building Director
Gary Whitaker

Cable TV Coordinator
Alan Bozeman

Community Development Director
John Callow

City Engineer
Chris Griffith

Fire Chief
Cumbey Gaines

Coordinates physical development of city; with respect to s/water, conducts pre-application meetings and reviews development plans, incl. stormwater issues; floodway and floodplain management

Fleet Services Director
Jack Hyatt

Golf Course Director
Tracy Wilkins

Human Resources Director
Glen Godwin

IT Director
Chris Lilly

Planning Director
Joseph Aydelott

Chief of Police
Glenn Chrisman

Recreation Director
Lanny Goodwin

Senior Citizens Director
Linda Burt

Solid Waste Director
Joey Smith

Transportation Director
Dana Richardson

Urban Environmental Director
Cynthia Holloway

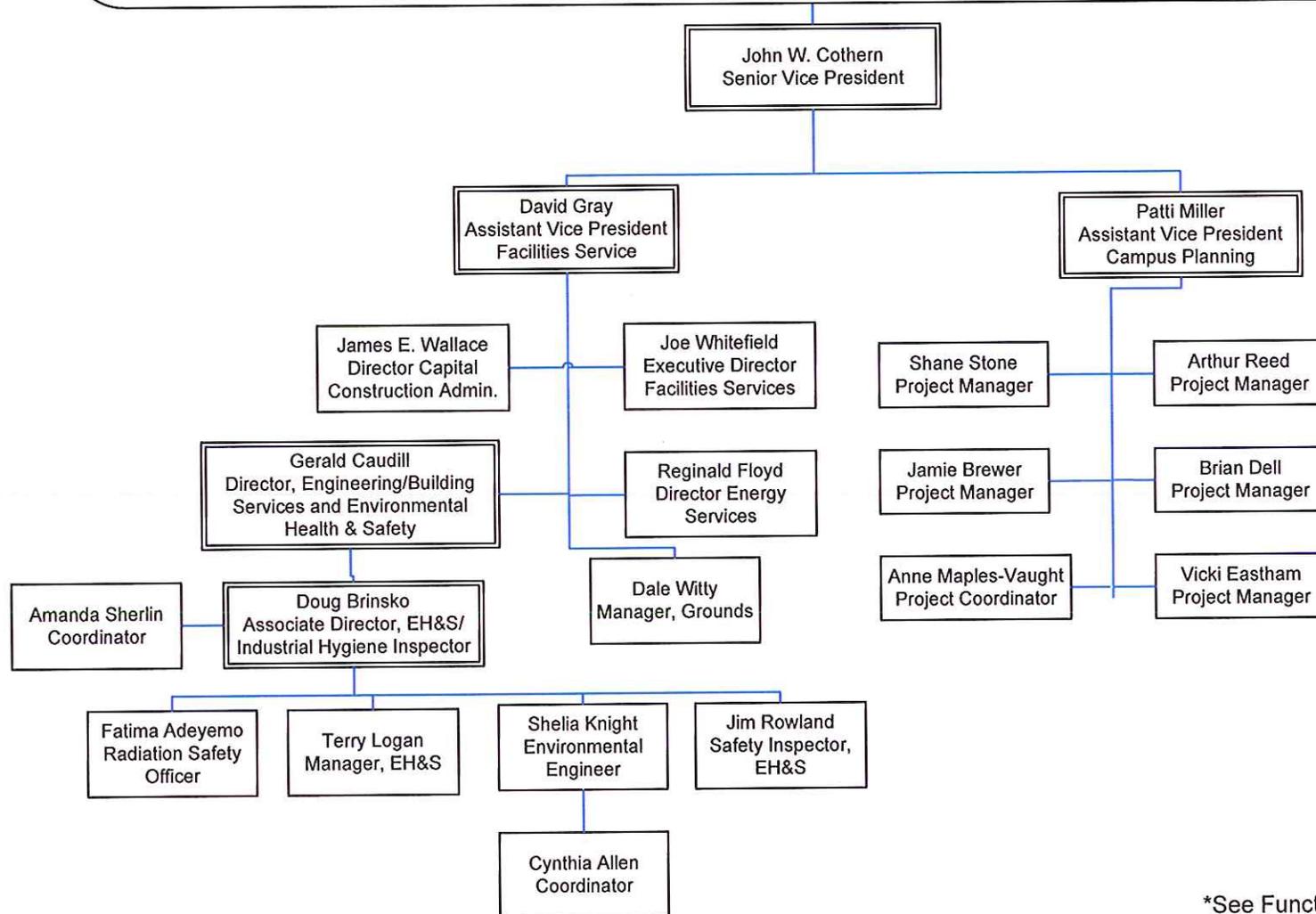
Water & Sewer Director
Darren Gore

Drafts water quality-related ordinances; public outreach and involvement; illicit discharge screening; maintains storm sewer map; monitors installation & maintenance of post-construction treatment controls; water quality monitoring; storm sewer vacuuming (O&M); annual report to TDEC; stormwater-related education/training of staff; maintain stormwater quality-related policy and procedure documents (SWMP)

MIDDLE TENNESSEE STATE UNIVERSITY – Organizational Chart
September 17, 2014

Administrative Body

Dr. Sidney McPhee, University President, Dr. Brad Bartel, University Provost, John W. Cothern, Senior Vice President, Dr. Debra Sells, Vice President for Student Affairs and Vice Provost for Enrollment & Academic Services, William J. Bales, VP for University Advancement, Andrew Oppmann, VP Marketing & Communication, Bruce Petryshak, VP for Information Technology & Chief Information Officer



*See Functional Responsibilities Chart

**Middle Tennessee State University Staff
with Function Responsibilities for Stormwater Best Management Practices**

Best Management Practice	Position Title With Responsibility for BMP	Name	Comments
Public Education and Public Outreach	Environmental Engineer	Shelia Knight	Coordinates activities of MTSU's Stormwater Program
Illicit Discharge Detection and Elimination	Environmental Engineer	Shelia Knight	Directs activities of stormwater program.
	Manager, EH&S	Terry Logan	Safety Officer responsible for MTSU's SPCC Program and conducting routine campus EH&S inspections and audits.
	Grounds Supervisor	Dale Witty	Responsible for daily maintenance of streets, parking lots and grounds.
Construction Site Runoff Program	Director, Capital Construction Administration	James Wallace	Responsible for oversight of capital construction projects and construction permits.
Permanent (Post Construction) Stormwater Management Program	Assistant Vice President, Campus Planning	Patricia Miller	Responsible for capital project design and specifications which includes design of permanent stormwater management systems and structures.
	Environmental Engineer	Shelia Knight	Responsible for maintenance and operation of campus systems including stormwater management systems.
	Grounds Supervisor	Dale Witty	Responsible for daily maintenance of streets, parking lots and grounds.
Pollution Prevention and Good Housekeeping	Environmental Engineer	Shelia Knight	Coordinates with university departments to develop pollution prevention and good housekeeping practices.
	Grounds Supervisor	Dale Witty	Responsible for daily maintenance of streets, parking lots and grounds.