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 Hendersonville		MS4 Permit Number: TNS075353
Contact Person: Helen Morrison		Email Address: hmorrison@hvilletn.org
Telephone: (615) 822-1016		MS4 Program Web Address: https://www.hvilletn.org/departments/public-works/stormwater
Mailing Address: 101 Maple Drive North		
City: Hendersonville	State: TN	ZIP code: 37075

What is the current population of your MS4? 60,000

What is the reporting period for this annual report? July1 2020 to June 30 2021

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/)? 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)? 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: The City requires constructions sites discharging to ETWs to strictly adhere to TWRA & TDEC required timelines to protect the State Endangered Streamside Salamander. Construction sites discharging to waterbodies with unavailable parameters or ETWs are inspected at least once a month and in most cases twice a month. The city has implemented permanent water quality riparian buffers to protect all community waters. Increased buffer requirements have been implemented for ETWs and streams with unavailable parameters. ☒ Yes ☐ No

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: See Attachment 3B. ☒ Yes ☐ No

C. Do you have a webpage dedicated to your stormwater program? If yes, provide a link/URL: https://www.hvilletn.org/departments/public-works/stormwater/public-information-and-education ☒ Yes ☐ No

D. Summarize how you advertise and publicize your public education, outreach, involvement and participation opportunities: The City advertises and publicizes events using social media, the City's webpage, public notices, mail-out flyers, pamphlets, and Channel 3 public access channel.

E. Summarize the public education, outreach, involvement and participation activities you completed during this reporting period: Events have been limited during the pandemic, but the City was still able to participate in several education events including Tennessee Tree Day 2021, Goodlettsville Waterfest 2021, and MTSG/TNSA Meetings (webinar). Each year the City mails a Stormwater Flyer to every property owner in Hendersonville with water quality guidance for property owners. The City updated the Stormwater webpage and subpages to provide water quality guidance and education at all ages.

F. Summarize any specific successful outcome(s) (e.g., citizen involvement, pollutant reduction, water quality improvement, etc.) fully or partially attributable to your public education and participation program during this reporting period: The City of Hendersonville was able to provide stormwater education flyers to all property owners in the City, amounting to 23,750 flyers issued. The City publicized and participated in Tennessee Tree Day 2021 and had a total of 60 participants plant a total of 451 tree throughout the City. City staff also participated in a stormwater education event at Goodlettsville Waterfest 2021. Waterfest provided water quality education to 208 adults and children. City stormwater staff completed inspeciton of 56 hot spor location and provided education to various commercial property owners regarding maintenance of permanent stormwater control measures and eliminating illicit discharges. As a result of the hot spot inspections, 2 iilicit discharges were successfully eliminated. City staff updated all stormwater webpages to provide the most current water quality information and education to adults and children. The webpage had a total of 1,453 unique page views

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? 715

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: See attachment 4E. ☒ Yes ☐ No

F. How many illicit discharge related complaints were received this reporting period? 3

G. How many illicit discharge investigations were performed this reporting period? 5

H. Of those investigations performed, how many resulted in valid illicit discharges that were addressed and/or eliminated? 5

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

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? 58

F. How many active priority and non-priority construction sites were inspected this reporting period? 63

G. How many construction related complaints were received this reporting period? 4

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: See attachment 6B.	☒ Yes	☐ No

C. What is the threshold for development and redevelopment project plans plan review (e.g., all projects, projects disturbing greater than one acre, etc.)? All projects are reviewed.

D. How many development and redevelopment project plans were reviewed for this reporting period? 30

E. How many development and redevelopment project plans were approved? 18

F. How many permanent stormwater related complaints were received this reporting period? 60

G. How many enforcement actions were taken to address improper installation or maintenance? 0

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. City Ordinance 18-204 (2)(b) Provisions are made to manage stormwater by an off-site facility. The off- site facility must be in place and designed to provide the level of stormwater control that is equal to or greater than that which would be afforded by on-site practices. Further, the facility must be operated and maintained by an entity that is legally obligated to continue the operation and maintenance of the facility. ☒ 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
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. The Stormwater Ordinance was revised to incorporate verbiage to address contruction site wastes, priority construction sites, temporary and permanent water quality riparian buffers, and address design storm criteria.

Changes to the program as required by the division to satisfy permit requirements. After our MS4 Program Audit on May 5 & 6, 2021, TDEC recommended changes to the stormwater ordinance that were already in progress and have since been passed by the Board of Mayor and Alderman (Ordinance 2021-17). TDEC also required development and implementation of facilities Operation and Maintenance Plans. This program component was in the process of being developed and implemented. Full implementation of O & M Plans is set for 1/2022.

Information (e.g. additional acreage, outfalls, BMPs) on newly annexed areas and any resulting updates to your program. None

B. In preparation for this annual report, have you performed an overall assessment of your stormwater management program effectiveness? If yes, summarize the assessment results, and any modifications and improvements scheduled to be implemented in the next reporting period. The City of Hendersonville continues to work on building the Stormwater Program and accomplishing tasks outlined in the Stormwater Program GAP Analysis completed in 6/2019. The recent TDEC MS4 program audit provided additional guidance and recommendations to assess overal program effectiveness. The City will continue to review TDEC's recommendations and incorporate changes in the City's next Notice of Intent. ☒ 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:

Action	Construction	Permanent Stormwater	Illicit Discharge	In Your ERP?	
Verbal warnings	#2	#1	#1	☒ Yes	☐ No
Written notices	#372	#3	#2	☒ Yes	☐ No
Citations with administrative penalties	#0	#0	#0	☒ Yes	☐ No
Stop work orders	#2	#0	#0	☒ Yes	☐ No
Withholding of plan approvals or other authorizations	#1	#1	#0	☒ Yes	☐ No
Additional Measures	#4	#0	#0	Describe: Hold Building Permits and Codes Inspections	

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? Failure to properly design, install, and maintain BMPs

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. Analytical monitoring activities were completed and provided in the previous reporting period.

B. Summarize any non-analytical monitoring activities (e.g., planning, collection, evaluation of results) performed during this reporting period. Non-analytical monitoring activities were completed in the previous reporting period.

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

11. Certification

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

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

Jamie Clary, mayor — Printed Name and Title

Signature

8-19-21 — Date

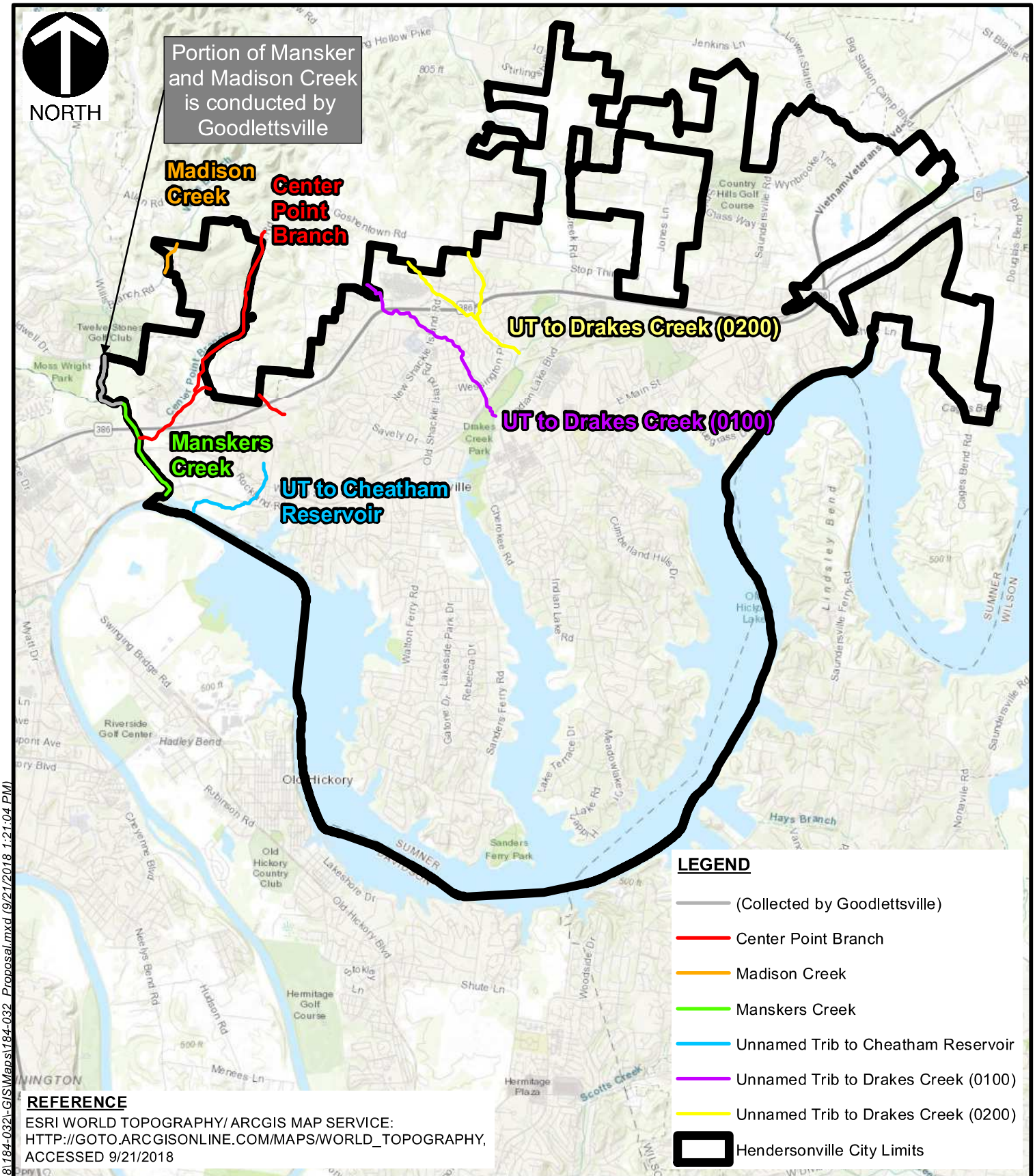
Annual reports must be submitted by September 30 of each calendar year (Section 5.4) to the appropriate Environmental Field Office (EFO), identified in the table below:

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

Attachment 2A.

Table 1: Waters with Unavailable Parameters within the City of Hendersonville

Waterbody Name	Waterbody I.D. # (Milage)	Cause(s)	Source Name(s)	VSA	Benthic	*E. Coli*
Center Point Branch	TN05130202220_0500 (3.26 miles)	Nutrient Eutrophication Biological Indicators	Municipal (Urbanized High Density Area)	X	X	
Madison Creek	TN05130202220_0400 (0.34 miles)	Sedimentation/Siltation	Municipal (Urbanized High Density Area)	X	X	
		Alteration in stream-side or littoral vegetative covers	Municipal (Urbanized High Density Area)			
Manskers Creek	TN05130202220_1000 (1.12 miles)	Sedimentation/Siltation	Municipal (Urbanized High Density Area)	X	X	X
		Escherichia coli	Municipal (Urbanized High Density Area)			
Waterbody Name	**Waterbody I.D. # (Milage)**	**Cause(s)**	**Source Name(s)**	**VSA**	**Benthic**	***E. Coli***
Unnamed Trib to Cheatham Reservoir	TN05130202001T_0600 (1.13 miles)	Chlorine	Municipal Point Source Discharges	X	X	
		Alteration in stream-side or littoral vegetative covers	Municipal (Urbanized High Density Area)			
		Sludge	Municipal (Urbanized High Density Area) & Municipal Point Source Discharges			
Unnamed Trib to Drakes Creek	TN05130201047_0100 (2.19 miles)	Alteration in stream-side or littoral vegetative covers	Municipal (Urbanized High Density Area)	X	X	
Unnamed Trib to Drakes Creek	TN05130201047_0200 (2.28 miles)	Alteration in stream-side or littoral vegetative covers	Municipal (Urbanized High Density Area)	X	X	



REFERENCE
ESRI WORLD TOPOGRAPHY/ ARCGIS MAP SERVICE:
HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_TOPOGRAPHY,
ACCESSED 9/21/2018

Civil & Environmental Consultants, Inc.
325 Seaboard Lane, Ste. 170 Franklin, Tennessee
615-333-7797 • 800-763-2326
www.cecinc.com

CITY OF HENDERSONVILLE MS4 MONITORING PLAN IMPAIRED STREAMS WITHIN MS4

VISUAL STREAM ASSESSMENT MAP

DRAWN BY:	RLP	CHECKED BY:	JMB	APPROVED BY:	SEC	FIGURE NO:	1
DATE:	9/21/2018	SCALE:	1 " = 7,000 '	PROJECT NO:	184-032		

\\SVR-NASH\\svr-nash\projects\2018\184-032\-GIS\Maps\184-032_Proposal.mxd (9/21/2018 1:21:04 PM)

Attachment 2C.

HUC	Watershed Name	Waterbody	County	Description
5130201	Cumberland-Old Hickory Lake	Drakes Creek Unnamed T	Sumner	Unnamed Tributary from confluence with Drakes Creek near river mile 9.1 to origin.
5130201	Cumberland-Old Hickory Lake	Drakes Creek Unnamed T	Sumner	Unnamed tributary including all tributaries from confluence with Drakes Creek near river mile 10 to origin.
5130201	Cumberland-Old Hickory Lake	Drakes Creek Unnamed T	Sumner	Unnamed tributary from Drakes Creek to origin.
5130201	Cumberland-Old Hickory Lake	Drakes Creek Unnamed T	Sumner	Unnamed tributary from Drakes Creek to origin.
5130201	Cumberland-Old Hickory Lake	Station Camp Creek unna	Sumner	Unnamed tributary from Station Camp Creek to origin including tributaries.
5130201	Cumberland-Old Hickory Lake	Old HIckory Reservoir Un	Sumner	Unnamed tributary from Old Hickory Reservoir to origin including tributaries.
5130201	Cumberland-Old Hickory Lake	Station Camp Creek Unn	Sumner	Unnamed tributary from Station Camp Creek to origin.
5130201	Cumberland-Old Hickory Lake	Station Camp Creek Unn	Sumner	Unnamed tributary from Station Camp Creek at Cages Bend Road to origin.
5130201	Cumberland-Old Hickory Lake	Station Camp Creek Unn	Sumner	Unnamed tributary from confluence with Station Camp Creek at Saundersville Road to origin.

Basis for Inclusion	From Lat	To Lat	From Long	To Long	Inclusion D	Revision Date						
State endangered streamside salamander Amb	36.34956	36.35428	-86.5963	-86.5755	JAN-04-2019							
State endangered streamside salamander Amb	36.35662	36.37303	-86.6021	-86.5874	FEB-04-2019							
State endangered streamside salamander Amb	36.33871	36.34428	-86.5954	-86.573	FEB-13-2019							
State endangered streamside salamander Amb	36.35673	36.37297	-86.6041	-86.5875	FEB-13-2019							
State endangered streamside salamander Amb	36.3834	36.3936	-86.552	-86.5451	FEB-13-2019							
State endangered streamside salamander Amb	36.31572	36.33626	-86.5767	-86.5628	FEB-14-2019							
State endangered streamside salamander Amb	36.35504	36.33804	-86.5413	-86.5561	FEB-14-2019							
State endangered streamside salamander Amb	36.34635	36.3346	-85.5248	-86.5311	FEB-14-2019							
State endangered streamside salamander Amb	36.36246	36.35496	-86.5514	-86.5649	FEB-14-2019							

Hendersonville MS4 Permit Public Information and Education Plan

Issue Date: 6/23/2020 Version: 2 Review Frequency: Annual

1. Introduction

The Public Information and Education (PIE) Plan is a requirement in the State of Tennessee's Small Municipal Separate Storm Sewer System (MS4) General National Pollution Discharge Elimination System Permit (hereafter referred to as the "NPDES permit"). Coverage under this permit was granted to the City of Hendersonville on April 3, 2017 under Permit Tracking Number TNS075353. The requirements of the PIE plan are listed in section 4.2.1 of the NPDES permit. Under this section, the City of Hendersonville must provide for the following:

- Detail specific goals and public information events/activities that will occur over the remainder of the permit cycle;
- Document all public education and outreach components;
- Incorporate an evaluation of components to assess overall effectiveness and the need for improvement;
- Include targeted educational campaigns addressing the following issues:
    a. General public awareness on the impacts on water quality from general housekeeping maintenance/activities;
    b. Home owner associations and other operators of permanent BMPs awareness of the importance of maintenance activities;
    c. Local engineering and development community awareness of the stormwater ordinance, regulations, and guidance materials related to long-term water quality impacts;
    d. General public and professional chemical applicators awareness on the proper storage, use, and disposal of pesticides, herbicides and fertilizers;
    e. General public and related commercial and professional stakeholders awareness on the proper storage, use and disposal of oil and other automotive-related fluids;
    f. General public and municipal employees on the awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.;
    g. Local engineering, development, and construction community awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts; and
    h. Municipal employee/contractor awareness of water quality impacts from daily operations.

This PIE plan presents an outline for the City of Hendersonville's public education and outreach program and documents the City's plan for compliance with the requirements.

2. Public Education and Participation & Goals

The City of Hendersonville participates in several special events throughout the year. Stormwater staff attend monthly stormwater group meetings, distribute trees for 250K Tree Day, and attend several community events to promote water quality in the community. Table 1 depicts the City of Hendersonville's active and planned efforts to provide targeted educational campaigns to address specific issues.

Table 1- City Efforts for Required Educational Campaigns		
Required Educational Campaigns	**City Activities**	**Measurable Goals**
a. General public awareness on the impacts on water quality from general housekeeping maintenance/activities;	• Public education on good housekeeping maintenance/activities displayed on website • Educational power points/videos shown on public access Channel 3 • All special events advertised on Stormwater website	• Number of website visits between July 1 and June 30 each year. • Number of recorded conversations with residents regarding stormwater (ex. BMPs, SCMs, drainage concerns, IDDE).
b. Homeowner associations and other operators of permanent BMPs/SCMs awareness of the importance of maintenance activities;	• Provide educational information on permanent BMP maintenance on website • Send out letters to owners/managers annually requesting inspection reports on permanent BMPs/SCMs. • Require Operation and Maintenance (O&M) Agreement for permanent BMPs/SCMs to be submitted with the plans review/permit application process.	• Number of website visits between July 1 and June 30 each year. • Number of recorded conversations with the community regarding BMP/SCM maintenance. • Number of O&M Agreements submitted and recorded. • Number of inspection reports submitted annually.
c. Local engineering and development community awareness of the stormwater ordinance, regulations, and guidance materials related to long-term water quality impacts;	• All EPSC plans are reviewed by 3rd party contractor/consultant with education component to guide designers on how to properly design EPSC measures • Provide educational information (TDEC Erosion and Sediment Control Handbook, Permanent BMP Manual, Stormwater Ordinance, EPSC plan review checklist) on website • Provide educational information on importance of BMPs during construction and post-construction SCMs. Distribute brochure(s).	• Number of website visits between July 1 and June 30 each year. • Number of plan sets reviewed by City staff and 3rd party contractor/consultant. • Number of BMP/SCM brochures distributed. • Number of plan sets that are prepared and submitted by personnel who have completed the TDEC Level 2 Design Course.
d. General public and professional chemical applicators awareness on the proper storage, use, and disposal of pesticides, herbicides and fertilizers;	• Provide educational information for proper storage, use, and disposal of pesticides, herbicides, and fertilizers • Distribute educational material to business owners/operators during hot spot inspections. • Add education information to website	• Frequency of hot spot inspections. • Number of brochures/information distributed during hot spot inspections. • Number of businesses reached.
e. General public and related commercial and professional stakeholders awareness on the proper storage, use and disposal of oil and other automotive-related fluids;	• Plan targeted mail outs to commercial and professional stakeholders regarding proper storage, use and disposal of oil and other automotive-related fluids. • Distribute educational material to business owners/operators during hot spot inspections. • Add education information to website.	• Frequency of hot spot inspections. • Number of brochures/information distributed during hot spot inspections. • Number of businesses reached.
f. General public and municipal employees on the awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.;	• Develop IDDE website subpage with educational information to identify illicit discharges/connections, sanitary sewer seepage, spills, etc.	• Number of website visits between July 1 and June 30 each year. • Number of recorded conversations with residents/community regarding non-stormwater discharges (IDDE). • Number of illicit discharges observed during hot spot inspections.
g. Local engineering, development, and construction community awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts; and	• Create webpage to provide ordinance education and design criteria for engineers, develops, and construction community • Educational Day (1 per permit term)	• Number of website visits between July 1 and June 30 each year. • Number of attendees at educational day.
h. Municipal employee/contractor awareness of water quality impacts from daily operations.	• Provide permit required training to municipal employees and contractors on stormwater pollution prevention and IDDE methods, etc. • Provide training to applicable, new employees within 6 months of employment date.	• Record of training materials provided. • Number of employees trained (initial and refresher trainings). • Number of employees trained in association with O&M Plan and SPCC plan requirements.

3. Responsible Personnel

The Hendersonville Stormwater Division is wholly responsible for developing and implementing the PIE plan and meeting program specific goals. Table 2 depicts general PIE plan objectives and the responsible personnel.

Table 2- PIE Plan Responsible Personnel		
Personnel	PIE Plan Responsibility	Contact Information
Duane Allen	• Oversees PIE Plan objectives. • Reviews/Approves all distribution of public information/education materials and website content.	615-822-1016 dallen@hvilletn.org
Helen Morrison	• Reviews PIE Plan objective to be consistent with MS4 requirements. • Coordinates all public education programs and events. • Coordinates participation at community events with other MS4s. • Oversees development of public educational materials. • Documents public education events and activities for Annual Report. • Oversees Stormwater web pages. • Audits City facilities to ensure that appropriate stormwater-related employee training is being conducted and documented.	615-590-4649 hmorrison@hvilletn.org
Christopher Rapp	• Promotes education and outreach events through various means • Provides educational programming at special events • Performs hot spot inspections. • Performs post construction BMPs/SCM inspections. • Distributes educational material during inspections and/or owner/operator/contractor meetings.	615-590-4659 crapp@hvilletn.org

4. PIE Plan Ultimate Goal

The ultimate goal of the City of Hendersonville PIE Plan is to minimize the discharge of pollutants to receiving streams by providing educational material and activities to raise awareness and promote behavior change within the local residential, commercial and development community, City employees, and their contractors. A summary of typical pollutants of concern and the source of pollutants can be seen in Table 3 below. Considerations for future PIE Plan initiatives should be able to tie back to prevention of these pollutants in stormwater.

Table 3- Typical Pollutant Runoff from Major Land Use Categories

Major Land Use	Typical Pollutants	Typical Source	Resulting Water Quality Degradation to Target in Educational Messages
Residential	1. Nutrients 2. Sediment 3. Pathogens 4. Organics	1. Over-fertilization, Pet Waste, Human Waste and Detergents from failing septic systems. 2. Grading areas without maintained controls. Removing stream bank vegetation. 3. Failing septic systems, illegal cross-connections of sanitary and stormwater, and pet waste. 4. Dumping of leaves/grass clippings in conveyances	1. Increased algal blooms, depleted dissolved oxygen levels from decaying algae. 2. Reduced water clarity for aquatic plants, smothers aquatic life, transports other pollutants. 3. Potentially harmful to human health. 4. Decomposition depletes dissolved oxygen levels within streams.
Light Commercial	1. Hydrocarbons (Oil & Grease) 2. Trash 3. Nutrients 4. Sediment	1. High-traffic parking lot areas, leaking storage tanks, etc. 2. Poor grounds upkeep, especially in parking areas and around dumpsters. 3. Landscaping/golf courses. 4. Grading/developing without maintained controls. Removing stream bank vegetation.	1. Toxic to aquatic life and impact drinking water supplies. 2. Aesthetically displeasing, can block drainage pipes causing erosion, can be harmful to wildlife. 3. Increased algal blooms, depleted dissolved oxygen levels from decaying algae. 4. Reduced water clarity for aquatic plants, smothers aquatic life, transports other pollutants.
Industrial/Heavy Commercial	1. Metals 2. Sediment 3. Hydrocarbons (Oil & Grease)	1. Exposed industrial processes/improper disposal. 2. Exposed industrial processes/improper disposal. Gravel parking lots with heavy truck traffic. 3. Equipment leakage, leaking storage containers, high-traffic pervious areas.	1. Acute or chronic toxic impacts to aquatic wildlife. 2. Reduced water clarity for aquatic plants, smothers aquatic life, transports other pollutants. 3. Toxic to aquatic life and impact drinking water supplies.

Source: Metro Nashville Municipal Separate Storm Sewer System Permit Public Information & Education Plan (2016)

5. Program Recordkeeping and Evaluation

City Stormwater Personnel will track PIE Plan initiatives (City Activities and progress toward meeting Measurable Goals in Table 2) throughout the year and will meet annually to review this information. The program's overall effectiveness with be evaluated based on the example criteria presented below and the need for improvement and/or modification will be determined based on the results of the program evaluation.

Suggested Criteria for Program Evaluation:

- Fewer violations noted during hot spot inspections.
- Fewer series of reviews for design plan submittals.
- Increased/Sustained maintenance of post construction BMPs/SCMs.
- Continuous/Increased website visits.
- Public participation.

2020-21 Special Events & Outreach (Appendix A)				
Date	**Event/Outreach**	**Location**	**Attendance**	**Audience**
10/1/2020	Stormwater Flyer included in Property Tax Bill	City-wide	~23,000	Adults
10/28/2021	UT Extension Sustainability Video	Gallatin	TBD	All Ages
12/1/2020	All Stormwater Webpages Updated	Web-based	1,453 views	All Ages
3/19/2021	Tennessee Tree Day 2021	City Hall	~60	All Ages
4/22/2021	Earth Day Email to City Hall Employees	City Hall	~70	Adults
4/27/2021	Mid. TN Stormwater Group Meeting (Field)	Hendersonville	~60	Adults
6/25/2021	Goodlettsville Water Fest 2021	Goodlettsville	208	All Ages

APPENDIX A

Documentation of City Activities

City of Hendersonville
Tennessee

The City of Hendersonville is known as the "City by the Lake," but the City also has 32 miles of streams. This means that the quality of water in our waterways is essential. Listed below are common pollutants within the City's waterways along with some suggestions for how we can work together as a community to reduce these pollutants. By doing so, we will improve water quality and be able to enjoy our waterways for generations to come!

YARD WASTE

Placing organic matter (leaves, grass, limbs, etc.) in ditches and streams can cause blockages in the storm sewer system, resulting in infrastructure failures and flooding. Decomposing organic matter depletes oxygen in our streams and Old Hickory Lake resulting in algal blooms and fish kills. Below are a few tips for disposing of yard waste:

- Collect leaves, twigs & grass clippings (no trash) in biodegradable paper bags (not plastic). Bags can be purchased at local home improvement and hardware stores. Place yard waste collection bags curbside by 6 AM on Monday for weekly collection.
- Place bagged yard waste and limbs within 12 feet of the edge of pavement for collection. For a list of additional yard waste guidelines visit: **https://www.hvilletn.org/departments/public-works/residential-collection-services/yard-waste-removal**
- **Do not block ditches, roadways, sidewalks or waterways with yard waste.**

CONSTRUCTION SITE MAINTENANCE

Below are some common construction issues that need to be brought to the City's attention to help reduce stormwater pollution:

- Sediment tracked into the street or carried into a waterway
- Illegal dumping of substances or spills (paints, concrete, oils)
- Excessive trash and debris

If any of these conditions or other construction site maintenance concerns are noted, please email the City at **construction@hvilletn.org**

SCOOP THE POOP

Pet waste is a major cause of E. Coli in our streams and rivers. Bacteria found in dog feces can cause serious diseases in humans if contaminated water comes in contact with an open wound or is ingested. Clean up after your pet and encourage others to do so. What is left behind ends up in our streams and Old Hickory Lake.

PAINT AND OIL DISPOSAL

All motor oils, paints and solvents contain toxic chemicals that are hazardous to people, wildlife and plants.

- Latex paint can be dried and disposed of in the trash.
- Oil-based paint must be properly disposed of by scheduling an appointment with the Sumner County Resource Authority. Please call 615-452-1114 to schedule an appointment.
- Use drip pans to catch fluids during vehicle maintenance. Bring used motor oils to a local recycling facility.

LIMIT USE OF FERTILIZERS & PESTICIDES

- Follow the instructions on fertilizer packaging to avoid excess fertilizer that can be washed into our storm sewer system. Mulched leaves and grass can be spread over your yard as a natural fertilizer. Composting is an affordable way to recycle yard waste and feed your plants. Visit **https://www.epa.gov/recycle/composting-home** for more information on composting at home.
- Natural pesticides/insecticides are better for the environment, your family, and pets.
- Excess nutrients (phosphorus, nitrogen) from fertilizers can cause algal blooms that reduce the amount of dissolved oxygen available to aquatic life in streams and Old Hickory Lake.

DID YOU KNOW?

- Every time it rains, stormwater washes over the land and picks up pollutants that are transported to our streams and Old Hickory Lake.
- One quart of motor oil can contaminate up to 250,000 gallons of fresh water.
- The City of Hendersonville is home to the State Endangered Streamside Salamander.
- You and your family can make a difference by being proactive and taking small steps to eliminate stormwater pollution. For additional information on the City's Stormwater Management Program visit: **https://www.hvilletn.org/departments/public-works/stormwater**

Recycling Locations:

Batteries and Light Bulbs

Batteries + Bulbs
1002 Glenbrook Way
Hendersonville, TN 37075
615-590-8988

Solid Waste and Recycling

Sumner County Resource Authority
625 Rappahannock Wire Road
Gallatin, TN 37066
615-452-1114

Used Motor Oil

Advance Auto Parts
Auto Zone
O'Reilly's Auto Parts
Walmart Auto Care Center

Drug Drop Off Box

Hendersonville Police Department
3 Executive Park Drive
Hendersonville, TN 37075
615-822-1111

Limbs and Leaves

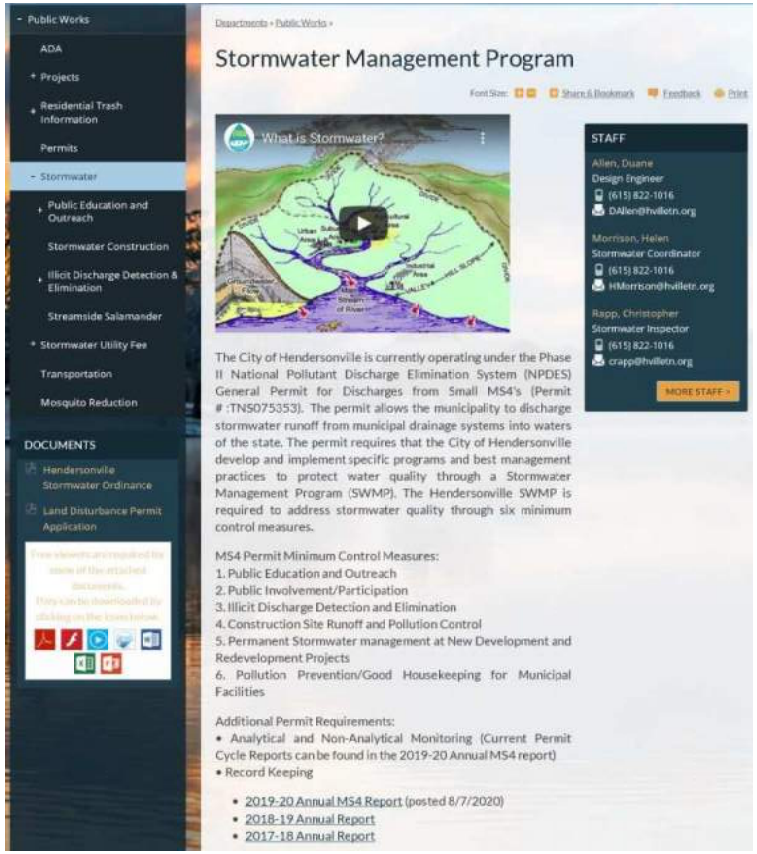
Check the City Limb Collection webpage for an up-to-date schedule for Residential Yard Waste Drop-Off Days

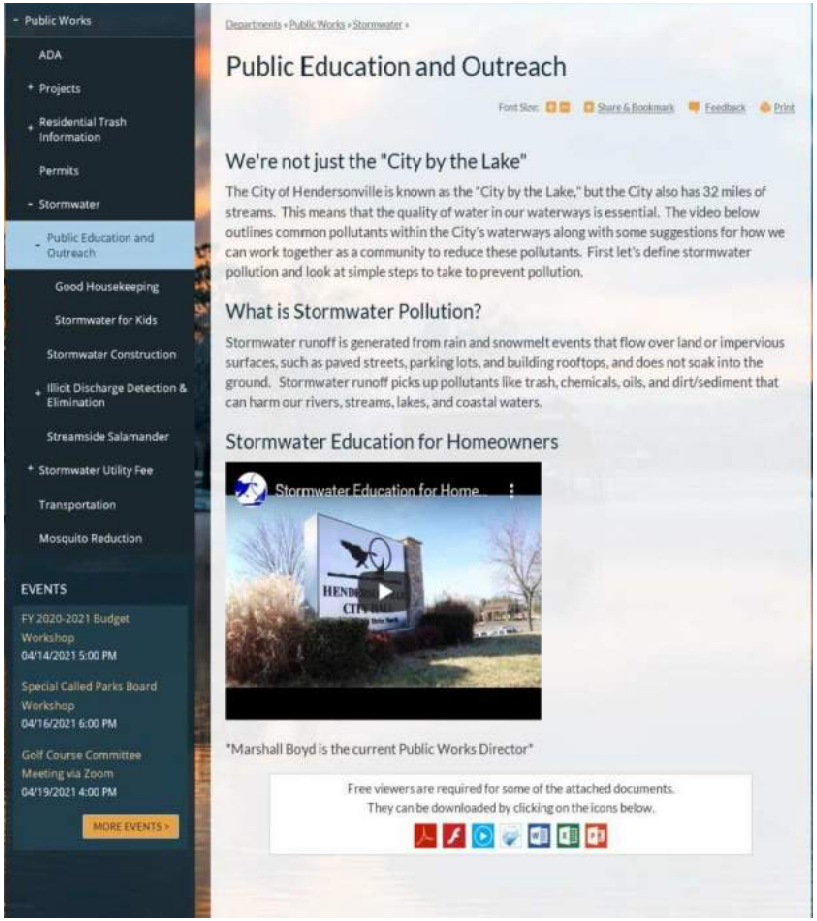
*Only for City Limit Residents
(Bring ID)

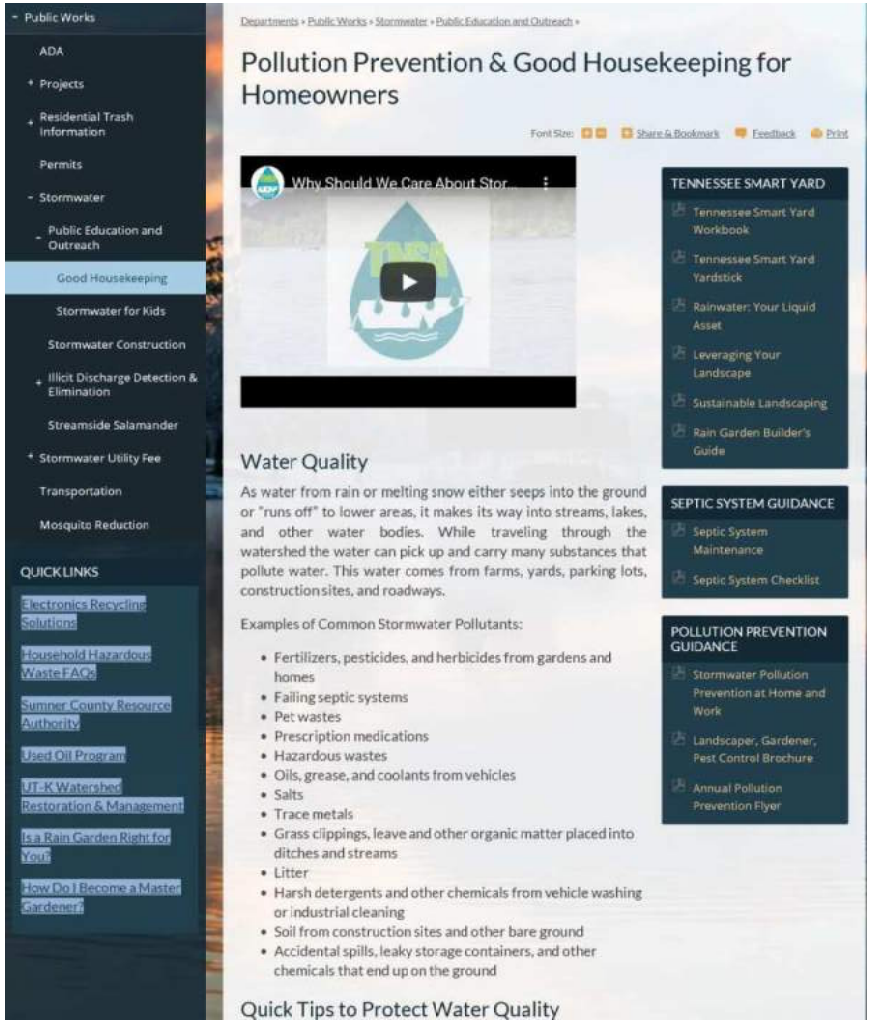
501 Forest Retreat Road
Hendersonville, TN 37075

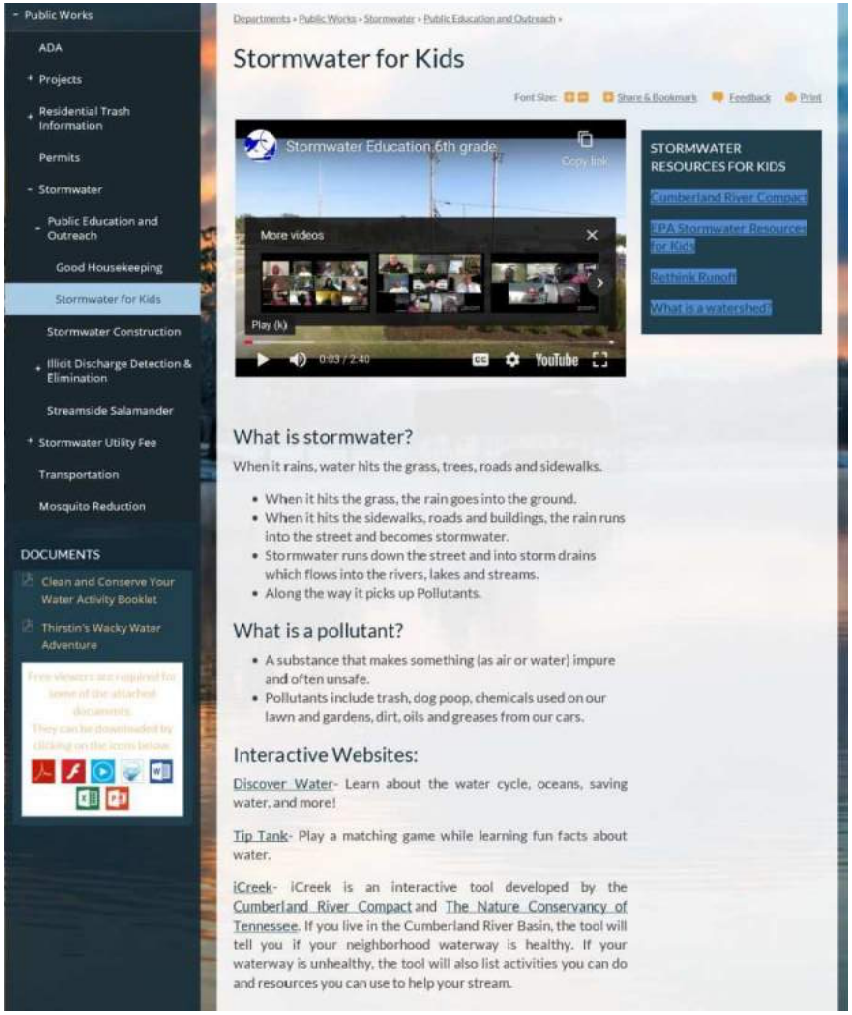
https://www.hvilletn.org/departments/public-works/residential-collection-services/limb-collection

Call the Hendersonville Stormwater Division at 615-822-1016 to report illegal dumping into the storm drain.


Public Works
ADA
Projects
Residential Trash Information
Permits
Stormwater
Public Education and Outreach
Stormwater Construction
Illicit Discharge Detection & Elimination
Streamside Salamander
Stormwater Utility Fee
Transportation
Mosquito Reduction
DOCUMENTS
Hendersonville Stormwater Ordinance
Land Disturbance Permit Application
Departments » Public Works »
Stormwater Management Program
Font Size: Share & Bookmark Feedback Print
What is Stormwater?
STAFF
Allen, Duane
Design Engineer
(615) 822-1016
DAllen@hvilletn.org
Morrison, Helen
Stormwater Coordinator
(615) 822-1016
HMorrison@hvilletn.org
Rapp, Christopher
Stormwater Inspector
(615) 822-1016
crapp@hvilletn.org
MORE STAFF >
The City of Hendersonville is currently operating under the Phase II National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Small MS4's (Permit # :TNS075353). The permit allows the municipality to discharge stormwater runoff from municipal drainage systems into waters of the state. The permit requires that the City of Hendersonville develop and implement specific programs and best management practices to protect water quality through a Stormwater Management Program (SWMP). The Hendersonville SWMP is required to address stormwater quality through six minimum control measures.
MS4 Permit Minimum Control Measures:
1. Public Education and Outreach
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff and Pollution Control
5. Permanent Stormwater management at New Development and Redevelopment Projects
6. Pollution Prevention/Good Housekeeping for Municipal Facilities
Additional Permit Requirements:
• Analytical and Non-Analytical Monitoring (Current Permit Cycle Reports can be found in the 2019-20 Annual MS4 report)
• Record Keeping
2019-20 Annual MS4 Report (posted 8/7/2020)
2018-19 Annual Report
2017-18 Annual Report


Public Works
ADA
Projects
Residential Trash Information
Permits
Stormwater
Public Education and Outreach
Good Housekeeping
Stormwater for Kids
Stormwater Construction
Illicit Discharge Detection & Elimination
Streamside Salamander
Stormwater Utility Fee
Transportation
Mosquito Reduction
EVENTS
FY 2020-2021 Budget Workshop
04/14/2021 5:00 PM
Special Called Parks Board Workshop
04/16/2021 6:00 PM
Golf Course Committee Meeting via Zoom
04/19/2021 4:00 PM
MORE EVENTS >
Departments » Public Works » Stormwater »
Public Education and Outreach
Font Size: Share & Bookmark Feedback Print
We're not just the "City by the Lake"
The City of Hendersonville is known as the "City by the Lake," but the City also has 32 miles of streams. This means that the quality of water in our waterways is essential. The video below outlines common pollutants within the City's waterways along with some suggestions for how we can work together as a community to reduce these pollutants. First let's define stormwater pollution and look at simple steps to take to prevent pollution.
What is Stormwater Pollution?
Stormwater runoff is generated from rain and snowmelt events that flow over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground. Stormwater runoff picks up pollutants like trash, chemicals, oils, and dirt/sediment that can harm our rivers, streams, lakes, and coastal waters.
Stormwater Education for Homeowners
Stormwater Education for Home...
Marshall Boyd is the current Public Works Director
Free viewers are required for some of the attached documents.
They can be downloaded by clicking on the icons below.


Public Works
ADA
Projects
Residential Trash Information
Permits
Stormwater
Public Education and Outreach
Good Housekeeping
Stormwater for Kids
Stormwater Construction
Illicit Discharge Detection & Elimination
Streamside Salamander
Stormwater Utility Fee
Transportation
Mosquito Reduction
QUICK LINKS
Electronics Recycling Solutions
Household Hazardous Waste FAQs
Sumner County Resource Authority
Used Oil Program
UT-K Watershed Restoration & Management
Is a Rain Garden Right for You?
How Do I Become a Master Gardener?
Departments » Public Works » Stormwater » Public Education and Outreach »
Pollution Prevention & Good Housekeeping for Homeowners
Font Size: Share & Bookmark Feedback Print
Why Should We Care About Stor...
TENNESSEE SMART YARD
Tennessee Smart Yard Workbook
Tennessee Smart Yard Yardstick
Rainwater: Your Liquid Asset
Leveraging Your Landscape
Sustainable Landscaping
Rain Garden Builder's Guide
SEPTIC SYSTEM GUIDANCE
Septic System Maintenance
Septic System Checklist
POLLUTION PREVENTION GUIDANCE
Stormwater Pollution Prevention at Home and Work
Landscaper, Gardener, Pest Control Brochure
Annual Pollution Prevention Flyer
Water Quality
As water from rain or melting snow either seeps into the ground or "runs off" to lower areas, it makes its way into streams, lakes, and other water bodies. While traveling through the watershed the water can pick up and carry many substances that pollute water. This water comes from farms, yards, parking lots, construction sites, and roadways.
Examples of Common Stormwater Pollutants:
Fertilizers, pesticides, and herbicides from gardens and homes
Failing septic systems
Pet wastes
Prescription medications
Hazardous wastes
Oils, grease, and coolants from vehicles
Salts
Trace metals
Grass clippings, leave and other organic matter placed into ditches and streams
Litter
Harsh detergents and other chemicals from vehicle washing or industrial cleaning
Soil from construction sites and other bare ground
Accidental spills, leaky storage containers, and other chemicals that end up on the ground
Quick Tips to Protect Water Quality


Public Works
ADA
Projects
Residential Trash Information
Permits
Stormwater
Public Education and Outreach
Good Housekeeping
Stormwater for Kids
Stormwater Construction
Illicit Discharge Detection & Elimination
Streamside Salamander
Stormwater Utility Fee
Transportation
Mosquito Reduction
DOCUMENTS
Clean and Conserve Your Water Activity Booklet
Thirstin's Wacky Water Adventure
Free viewers are required for some of the attached documents. They can be downloaded by clicking on the icons below.
Departments » Public Works » Stormwater » Public Education and Outreach »
Stormwater for Kids
Font Size: Share & Bookmark Feedback Print
Stormwater Education 6th grade
Copy link
More videos
Play (k)
0:03 / 2:40
YouTube
STORMWATER RESOURCES FOR KIDS
Cumberland River Compact
EPA Stormwater Resources for Kids
Rethink Runoff
What is a watershed?
What is stormwater?
When it rains, water hits the grass, trees, roads and sidewalks.
When it hits the grass, the rain goes into the ground.
When it hits the sidewalks, roads and buildings, the rain runs into the street and becomes stormwater.
Stormwater runs down the street and into storm drains which flows into the rivers, lakes and streams.
Along the way it picks up Pollutants.
What is a pollutant?
A substance that makes something (as air or water) impure and often unsafe.
Pollutants include trash, dog poop, chemicals used on our lawn and gardens, dirt, oils and greases from our cars.
Interactive Websites:
Discover Water- Learn about the water cycle, oceans, saving water, and more!
Tip Tank- Play a matching game while learning fun facts about water.
iCreek- iCreek is an interactive tool developed by the Cumberland River Compact and The Nature Conservancy of Tennessee. If you live in the Cumberland River Basin, the tool will tell you if your neighborhood waterway is healthy. If your waterway is unhealthy, the tool will also list activities you can do and resources you can use to help your stream.

- Public Works
  - ADA
  - + Projects
  - + Residential Trash Information
  - Permits
  - - Stormwater
    - + Public Education and Outreach
    - Stormwater Construction
    - + Illicit Discharge Detection & Elimination
    - Streamside Salamander
  - + Stormwater Utility Fee
  - Transportation
  - Mosquito Reduction

STORMWATER DESIGN RESOURCES

- Hendersonville Stormwater Ordinance
- Tennessee Permanent Stormwater Management and Design Guidance Manual-1st Edition
- TDEC BMP Details (pdf)
- TDEC Eands Handbook 4th Edition
- Construction General Permit (effective 2016)

Departments › Public Works › Stormwater ›

Stormwater Construction

Font Size: Share & Bookmark Feedback Print

Construction sites within the City of Hendersonville are required to adhere to the water quality and water quantity requirements laid out in the Stormwater Ordinance. The City requires that these construction site operators properly design, install and maintain stormwater pollution prevention measures throughout construction.

The City has provided several resources below, including an informational video, to help designers, developers, and contractors to adhere the City, State, and Federal water quality laws. To comply with the City Ordinance, those developing in the City must understand local requirements and follow the proper procedures to obtain permit coverage.

The Tennessee Department of Environment and Conservation has provided a useful map tool to assist developers and engineers with preparation of Stormwater Pollution Prevention Plans for construction sites. The map is specific to requirements of the Construction Stormwater Permit and shows drainage areas and streams with unavailable parameters (impaired due to siltation and habitat alteration due to in-channel erosion) where special conditions apply. For your convenience, the map also has a tab at the top of the page that links to the list of Exceptional Tennessee Waters. Visit the Construction General Permit Map Viewer for more information.

Below are some common construction issues that need to be brought to the City's attention to help reduce stormwater pollution:

Sediment tracked into the street is discharged into a nearby stream

If you observe any of the above issues or other possible problems on a local construction site please notify the City at construction@hvilletn.org or call 615-822-1016 to speak with the Stormwater Inspector.

- Public Works
  - ADA
  - + Projects
  - + Residential Trash Information
  - Permits
  - - Stormwater
    - + Public Education and Outreach
    - Stormwater Construction
    - - Illicit Discharge Detection & Elimination
      - Illicit Discharge/Illicit Connection Report Form
      - Streamside Salamander
  - + Stormwater Utility Fee
  - Transportation
  - Mosquito Reduction

FAQS

- How often will my trash be picked up by Waste Pro?
- What waste will not be picked up by Waste Pro?
- Are hazardous items allowed in containers?

MORE FAQS »

Departments › Public Works › Stormwater ›

Illicit Discharge Detection & Elimination

Font Size: Share & Bookmark Feedback Print

What is an illicit discharge?

In general, illicit discharges include any discharge into a storm drain system that is not entirely composed of stormwater. The exceptions include water from firefighting activities and discharges from facilities already under an NPDES permit. Illicit discharges are a problem because, unlike wastewater, which flows to a treatment plant, stormwater generally flows to waterways without any additional treatment. Illicit discharges often contain pathogens, nutrients, surfactants, and various toxic pollutants.

What is an illicit connection?

An illicit connection is an illegal and/or unauthorized connection to the municipal separate storm sewer system (MS4) whether or not such connections result in discharges into that system.

What can you do?

If you see something, say something. Even if you are unsure what the discharge may be, you can report any suspicious spills, leaks, and/or discharges to the City. City of Hendersonville Staff are trained to identify unlawful discharges of pollutants to the storm drain system, but we need help from you.

You can help us by reporting any pollution you observe, by using the form below (Reports can be submitted anonymously). If you see any of the following, please let us know:

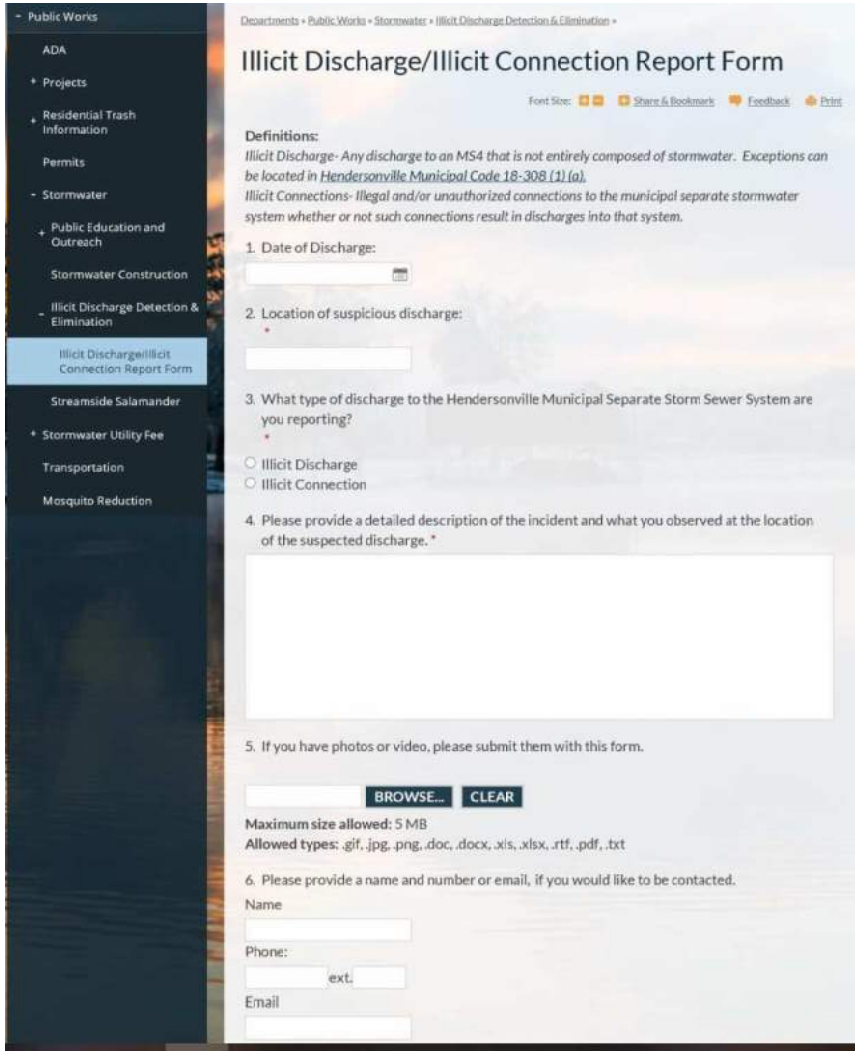
- water pollution activity
- see material spilled or dumped into a waterway
- observe conditions near a storm drain or stream that indicate a polluting activity

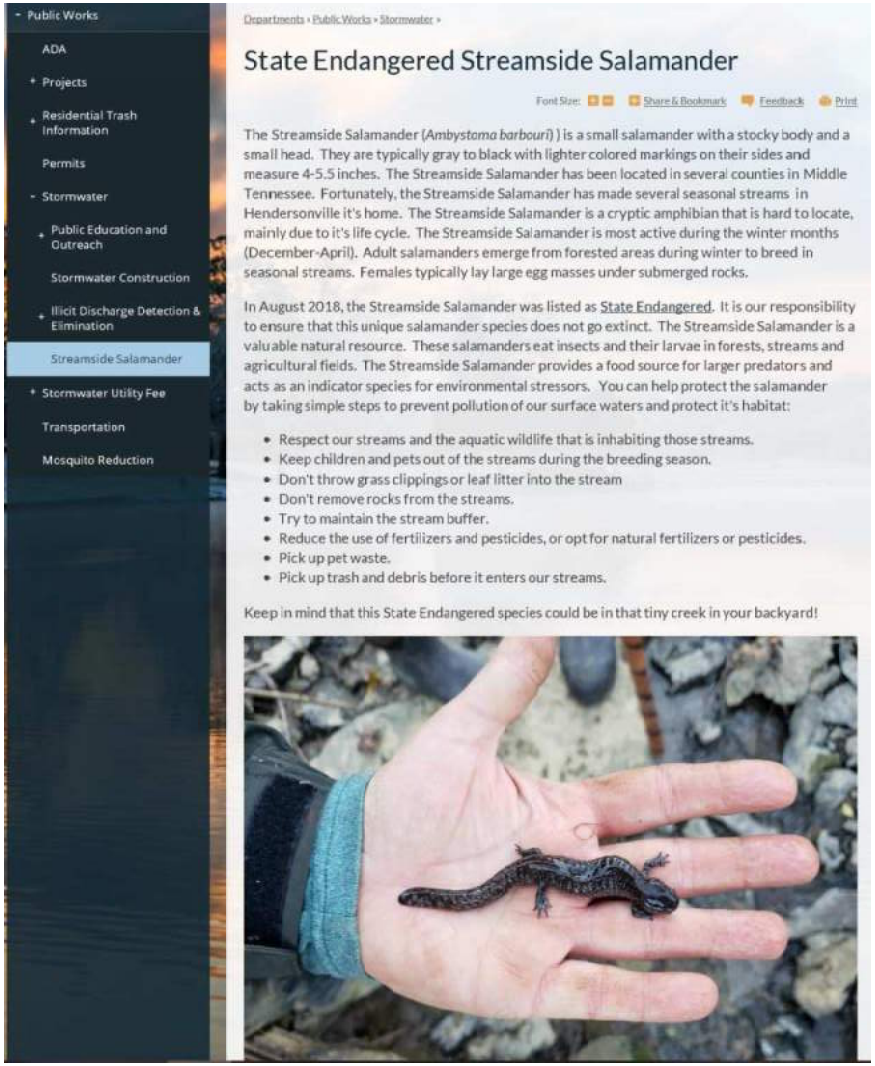
Sources of Illicit Discharges:

- Sanitary wastewater
- Effluent from septic tanks

Hendersonville Hot Spot Map

Hendersonville MS4 Input/Outfall Map


Public Works
ADA
Projects
Residential Trash Information
Permits
Stormwater
Public Education and Outreach
Stormwater Construction
Illicit Discharge Detection & Elimination
Illicit Discharge/Illicit Connection Report Form
Streamside Salamander
Stormwater Utility Fee
Transportation
Mosquito Reduction
Departments » Public Works » Stormwater » Illicit Discharge Detection & Elimination »
Illicit Discharge/Illicit Connection Report Form
Font Size: Share & Bookmark Feedback Print
Definitions:
Illicit Discharge- Any discharge to an MS4 that is not entirely composed of stormwater. Exceptions can be located in Hendersonville Municipal Code 18-308 (1) (a).
Illicit Connections- Illegal and/or unauthorized connections to the municipal separate stormwater system whether or not such connections result in discharges into that system.
1. Date of Discharge:
2. Location of suspicious discharge: *
3. What type of discharge to the Hendersonville Municipal Separate Storm Sewer System are you reporting? *
Illicit Discharge
Illicit Connection
4. Please provide a detailed description of the incident and what you observed at the location of the suspected discharge. *
5. If you have photos or video, please submit them with this form.
BROWSE...
CLEAR
Maximum size allowed: 5 MB
Allowed types: .gif, .jpg, .png, .doc, .docx, .xls, .xlsx, .rtf, .pdf, .txt
6. Please provide a name and number or email, if you would like to be contacted.
Name
Phone:
ext.
Email

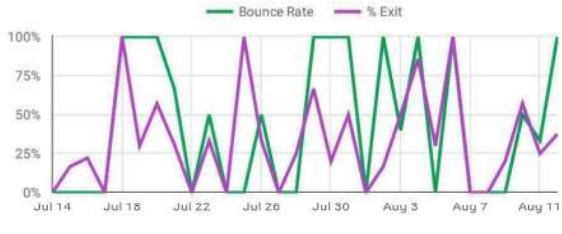

Public Works
ADA
Projects
Residential Trash Information
Permits
Stormwater
Public Education and Outreach
Stormwater Construction
Illicit Discharge Detection & Elimination
Streamside Salamander
Stormwater Utility Fee
Transportation
Mosquito Reduction
Departments » Public Works » Stormwater »
State Endangered Streamside Salamander
Font Size: Share & Bookmark Feedback Print
The Streamside Salamander (Ambystoma barbouri)) is a small salamander with a stocky body and a small head. They are typically gray to black with lighter colored markings on their sides and measure 4-5.5 inches. The Streamside Salamander has been located in several counties in Middle Tennessee. Fortunately, the Streamside Salamander has made several seasonal streams in Hendersonville it's home. The Streamside Salamander is a cryptic amphibian that is hard to locate, mainly due to it's life cycle. The Streamside Salamander is most active during the winter months (December-April). Adult salamanders emerge from forested areas during winter to breed in seasonal streams. Females typically lay large egg masses under submerged rocks.
In August 2018, the Streamside Salamander was listed as State Endangered. It is our responsibility to ensure that this unique salamander species does not go extinct. The Streamside Salamander is a valuable natural resource. These salamanders eat insects and their larvae in forests, streams and agricultural fields. The Streamside Salamander provides a food source for larger predators and acts as an indicator species for environmental stressors. You can help protect the salamander by taking simple steps to prevent pollution of our surface waters and protect it's habitat:
• Respect our streams and the aquatic wildlife that is inhabiting those streams.
• Keep children and pets out of the streams during the breeding season.
• Don't throw grass clippings or leaf litter into the stream
• Don't remove rocks from the streams.
• Try to maintain the stream buffer.
• Reduce the use of fertilizers and pesticides, or opt for natural fertilizers or pesticides.
• Pick up pet waste.
• Pick up trash and debris before it enters our streams.
Keep in mind that this State Endangered species could be in that tiny creek in your backyard!

Stormwater Webpage Analytics (source: Google Analytics)

Browser | User Type | Channel | Device | Jun 30, 2020 - Jul 1, 2021

Overview of your user behaviors

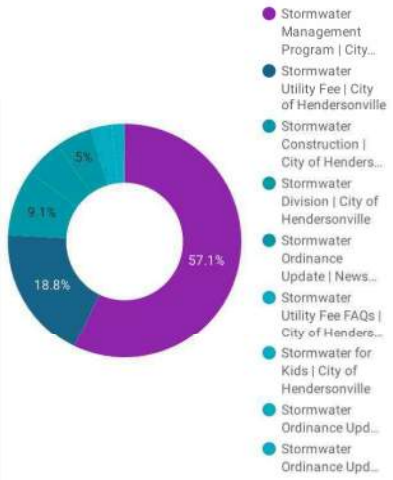
Pageviews	Unique Pageviews	Avg. Time on Page
1,764	1,453	00:01:34



Bounce Rate	% Exit	Pages / Session
61.38%	33.05%	3.94

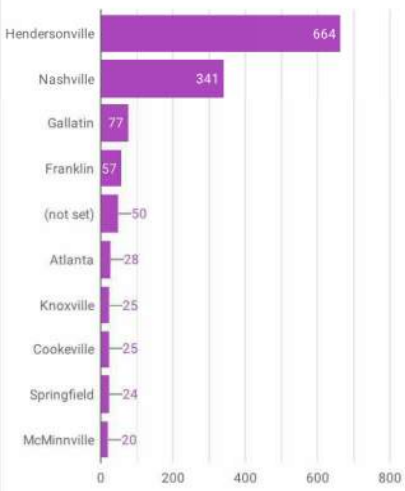
What do users see when they are in your website?

Most Views by Stormwater Page Titles



Page Titles by User Type: New vs. Returning

What cities are users from?



Pageviews vs. Unique Views by Title

	Page Title	Pagevi...	Unique ...
1.	Stormwater Manageme...	1,007	788
2.	Stormwater Utility Fee | ...	331	299
3.	Stormwater Constructio...	161	130
4.	Stormwater Division | Cit...	94	79
5.	Stormwater Ordinance U...	88	82
6.	Stormwater Utility Fee F...	51	47
7.	Stormwater for Kids | Cit...	29	25
8.	Stormwater Ordinance U...	2	2
9.	Stormwater Ordinance U...	1	1

1 - 9 / 9

Avg Time on Page by Stormwater Page Title

	Page Title	Avg. Time ...
1.	Stormwater Construction | City of H...	00:03:12
2.	Stormwater Utility Fee | City of Hen...	00:02:20
3.	Stormwater for Kids | City of Hende...	00:01:46
4.	Stormwater Management Program ...	00:01:23
5.	Stormwater Ordinance Update | Ne...	00:01:08
6.	Stormwater Utility Fee FAQs | City o...	00:01:01
7.	Stormwater Division | City of Hende...	00:00:33
8.	Stormwater Ordinance Update | Pro...	00:00:21
9.	Stormwater Ordinance Update | Pa...	null

1 - 9 / 9

	City	Pageviews
1.	Hendersonville	664
2.	Nashville	341
3.	Gallatin	77
4.	Franklin	57
5.	(not set)	50
6.	Atlanta	28
7.	Knoxville	25
8.	Cookeville	25
9.	Springfield	24
10.	McMinnville	20
11.	Mt. Juliet	14
12.	Kent	14
13.	Schiller Park	13
14.	Clarksville	12
15.	Smyrna	12
16.	Bolingbrook	10
17.	Brentwood	10
18.	White House	9
19.	Boston	9
20.	Portland	9

1 - 20 / 193

Google Analytics Metrics Definitions	
Exit Rate	For all pageviews to the page, Exit Rate is the percentage that were the last in the session
Bounce Rate	Bounce Rate for a page is based only on sessions that start with that page. Bounce rate = single-page sessions divided by all sessions
Bounce	A bounce is a single-page session on your site
More Metrics Explanation:	https://support.google.com/analytics/answer/1033861?hl=en#zippy=%2Cin-this-article

Helen Morrison

From: Helen Morrison
Sent: Thursday, April 22, 2021 9:53 AM
To: City Hall Employees
Subject: Happy Earth Day!
Attachments: Stormwater Education Flyer- Property Tax.pdf; Stormwater Pollution Prevention at Home and Work.pdf; Landscapers Homeowners Gardener Stormwater BMPs City of Hendersonville.pdf

Happy Earth Day!

To help provide education and spread awareness in honor of our great planet, the City of Hendersonville Stormwater Division is providing the location to our Storm Watch training video folder (P:\Storm Watch). This folder contains a video providing stormwater education and simple steps that City employees can take to help reduce and/or eliminate stormwater pollution.

If you decide to watch the video, and would like to check your stormwater pollution knowledge there is a quick quiz included in the folder (there is no requirement to take the quiz). Tracking of educational components is a requirement of the City's MS4 Permit, if you watch the video please send me an email so I can document how many views we get by City employees.

I've also attached some helpful stormwater brochures and our annual stormwater flyer. These brochures provide helpful information about landscaping, pesticide use, recycling opportunities, and simple steps we can all take to protect our planet. Our website also has tons of helpful information: https://www.hvilletn.org/departments/public-works/stormwater/good-housekeeping

If anyone has any questions, please send an email or give me a call.

Respectfully,
Helen Morrison
Stormwater Coordinator
City of Hendersonville
615-590-4649

TENNESSEE ENVIRONMENTAL COUNCIL

Tennessee Tree Day 2021

#BetheSolution

Sumner County: City of Hendersonville: 101 Maple Drive North - Tree List

Thank you for Participating in Tennessee Tree Day 2021.
Here is your list of participants who will be picking trees up from you during your open hours of operation.
We recommend pre-bundling the day before to help your lines move quickly and thus prevent groups of people from waiting together.

When dividing bags or bundles of trees, **keep tree roots wet, away from sunlight, and re-wrap immediately (squeeze the air out, divide into different trash bags and label with a black sharpie).**

First Name	Last Name	Pine, Shortleaf	Baldcypress	Oak, N. Red	Wild Plum	Tulip Poplar	Red Mulberry	Eastern Redbud	Buttonbush	Pecan, Native Sweet	Sweetgum	Silky Dogwood	Oak, White	Beautyberry	Total # Trees
Michael	Adams							5							5
Lisa	Alfriend								1						1
Lisa	Alfriend				1										1
Lisa	Alfriend				1		2	1	2	1		2			9
Diana	Arcuri					2		2							4
Katelan	Barron							2				1			3
Oliver	Barry			2											2
Ryan	Bodnar				1	1			1			1			4
Kathryn	Breeding								3			3			6
Lou Ann	Brown	1	2			2									5
Dana	Callahan				2		2	2	1	2					9
Charlie	Campbell					10		5							15
Lucia	Castrejon							1							1

Jerry	Coffey							3				2			5
Brandy	Coker		1		1			1	2			2			7
Jennifer	Cortes							1							1
Allan	Crowson					1		1							2
Donald	Demarse				5		5								10
Karen	Disney					1		1							2
Stacy	Douglas			2	2					2					6
Robert	Ebelhar			10						10			10		30
Loree	Fulle	5						2	1						8
Laura	Galloway	2							5						7
Cathie	Green									1		1			2
Carolyn	Gregory					2				1		2			5
Randy	Held	2	3					1	2						8
Jason	Johnson			3	2	2	3			2					12
Joann	Maggart					2		2							4
Joe	Martin			1	1		1	2	1				1		7
Ronald	Martinelli					3		2							5
James	McConnell									1					1
Jennifer	Meares											4			4
Jennifer	Meares									1		5			6
Nicole	Mitchell				2		1								3
Elizabeth	Moss							3							3
MJ	MURPHY							1				1			2
Kelsey	Nicklaw			2				6							8
Kat	Osborn			2	1	2	1	2	1		2				11
Valerie	Payne							2							2
Madison	Pestka					2		5							7
Adrianna	Pickstock							3							3

JoAnn	Pitzer									3					3
Andrea	Reeds				1	1	2		1		1				6
Dan	Riley					2	8	8	6						24
Doug	Rogers					1				3					4
Caitlin	Shinn			1											1
Crystal	Sircar					1									1
Rona	Siscoe			5		2									7
Amanda	Slaton				1			3	2					3	9
Barbara	Smith			1	1	2	3	4	4			3			18
Julie	Smith										2				2
Steven	Sonnenblick			2						2			1		5
Carrie	Sublett				1			1	4					3	9
Wendy	Swaby					3		3					2		8
Lynn	Takacs	3		1		1	1		1	2					9
Jason	Travis			1						1		1			3
Karen	Tugwell							5							5
Damon	Walls	5			10		10		5			10	10		50
Sandy	Watters		10												10
Lynda	Weaver			1	5			5	3						14
Kevin	Welch			1		1									2
Steve	White	5		5									5		15
Totals		23	16	40	38	44	39	85	46	32	5	38	29	6	441
Thank you for sponsoring TN Tree Day.															
Your Sponsor Trees are included with this shipment, as follows:															
Loblolly Pines	**50**	**50**													**100**

ENGINEERING - STORMWATER
CLEAN WATER | HEALTHY COMMUNITIES

MTSG Agenda

April 27, 2021, 11:00 AM - 1:00 PM
Location: Jen-Hill Construction Materials Office
1025 Lavern Circle
Hendersonville, TN

Welcome Back Everyone!

1. TNSA Conference Registration is open: https://www.tnstormwater.org/tnsa-conference
    a. October 19-21, 2021, Montgomery Bell State Park

2. 8th Annual Urban Runoff 5K & Water Quality Festival - August 7, 2021
    a. https://www.tnstormwater.org/urban-runoff-5k and on Facebook: https://www.facebook.com/NashvilleUrbanRunoff5k/

3. Stream Cleanup Event CRC, Millersville & Goodlettsville on May 22, 2021

4. IECA in person Conference June 7-9 Huntsville AL.

5. Waterfest Moss Wright Park June 25, 2021

6. Recent Audits
    a. Goodlettsville, Rutherford County, Gallatin
    b. Hendersonville coming up next week – May 5th & 6th

7. Goodlettsville proposal for Stormwater fee increase submitted to City Manager

8. Other Items/Comments & Open Discussion

9. Jen-Hill Presentation

Thank you Trey Hightower and Jen-Hill for hosting today's MTSG meeting!

JUNE 25 @ 10:00 AM - 12:00 PM

CUMBERLAND RIVER COMPACT

Waterfest

GOODLETTSVILLE

SUMNER COUNTY UTEXTENSION INSTITUTE OF AGRICULTURE THE UNIVERSITY OF TENNESSEE

GALLATIN TENNESSEE ENGINEERING + STORMWATER

GOODLETTSVILLE TENNESSEE

SUMNER COUNTY TENNESSEE 1786

TENNESSEE State Parks

TENNESSEE ENVIRONMENTAL COUNCIL

4. Illicit Discharge Detection & Elimination Plan, IDDE SOP, Storm Sewer System Map, Hot Spot Map

City of Hendersonville

IDDE Plan

April 2021

Illicit Discharge Detection and Elimination Plan Table of Contents

Illicit Discharge Detection & Elimination Plan

I. Purpose

To develop and implement a plan to detect, identify, and eliminate non-stormwater discharges, including through illegal disposal, throughout the Hendersonville MS4 jurisdiction. IDDE permit requirements can be found in Appendix A. Non-stormwater discharges are defined in the City Stormwater Ordinance Title 18, Chapter 3 (Appendix B)

II. PlanComponents

The City of Hendersonville has provided illicit discharge identification education to employees and citizens. Illicit discharge/connection education is provided through the City's webpage (https://www.hvilletn.org/departments/public-works/stormwater/illicit-discharge-detection-elimination), public access Channel 3, videos, and flyers/pamphlets. Stormwater staff has distributed a training video and pamphlets to City employees to assist in the identification of illicit discharges and the appropriate methods to report. Each year the City sends out citizen's property tax bills, an educational flyer is included to provide helpful information to eliminate illicit discharges. All information included helps citizens identify small steps to take to reduce stormwater pollution.

1. Mapping

The City of Hendersonville recently updated the storm sewer system map to meet the permit required components specified in the IDDE minimum control measure (Appendix C). The City will continue to work with consultants to update the GIS map when new developments are completed or annexed into the City.

Stormwater staff completed a desktop analysis to identify potential hot spots in the City and those hotspots have been documented in a spreadsheet and corresponding GIS map (Appendix D). The City is working with the IT department to integrate the map and an inspection for into the Tyler Technologies Energov application for ease of tracking and reporting.

2. Monitoring

The City of Hendersonville worked with Civil & Environmental Consultants, Inc. to complete all analytical and non-analytical monitoring requirements. These reports are evaluated and used to determine pollutants of concern and identify potential hot spot locations within the City.

3. Inspections

City Stormwater Staff inspections are on a routine basis and complaint driven. The City of Hendersonville completes representative outfall inspections throughout the City monthly. When the City goes live with the Energov applications, the stormwater inspector will complete monthly hot spot inspections. Inspections for Illicit Discharge/Connections follow the City of Hendersonville Illicit Discharge Detection and Elimination SOP (Appendix E).

4. *Tracking*

The City of Hendersonville keeps records of illicit discharge complaints and routine inspections in a tracking spreadsheet with a corresponding illicit discharge folder (Appendix F). The City is currently working to set up inspection documents through the Tyler Technologies Energov application. The projected "go live" date for this application is July 1, 2021. The inspections to be completed will include Hot Spot Inspections, IDDE investigations, and representative outfall inspections.

5. *Enforcement*

Enforcement procedures for Illicit Discharges are identified in the City's Enforcement Response Plan (Appendix G).

6. *Reporting*

The City of Hendersonville has provided citizens with a variety of ways to report illicit discharges within the City. Citizens can call into the City's Illicit Discharge Hotline 615-822-1016, emailing complaints to drainage@hvilletn.org, and completing an illicit discharge/illicit connection report form on the City's website (https://www.hvilletn.org/departments/public-works/stormwater/illicit-discharge-detection-elimination/illicit-discharge-illicit-connection-report-form). Appendix H includes an example of a reported illicit discharge complaint, investigation, and resolution.

III. Evaluation

Each year the City of Hendersonville meets to evaluate program components and overall program effectiveness.

APPENDIX A

MS4 IDDE PERMIT REQUIREMENTS

Permittees shall track and maintain records of public involvement and participation opportunities and include them in the SWMP. A summary of this information shall be included in the annual report.

4.2.3. Illicit Discharge Detection and Elimination

Permittees shall develop, or modify as necessary, implement and enforce an illicit discharge detection and elimination program. Newly designated permittees shall have this program implemented within 18 months of coverage under this permit. Currently permitted MS4s shall continue to implement their existing illicit discharge detection and elimination program.

New permittees must develop, and existing permittees must continue to develop, update and maintain, a storm sewer system map (preferably Geographic Information System based) that shows the location of system outfalls where the municipal storm sewer system discharges into waters of the state or storm sewer systems owned or operated by another MS4 jurisdiction. Updates to the map should be completed within 6 months of the completion of a system modification or addition. The deadline may be extended for larger changes such as large annexations. The map must be available for review upon request. The map must also show:

a. the names and location of waters of the state that receive discharges from those outfalls;
b. 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
c. general direction of stormwater flow.

To the extent allowable under state or local law, permittees shall effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges (unless allowed by sub-section 1.3.3.2) into the storm sewer system and implement an appropriate Enforcement Response Plan (ERP). The illicit discharge ordinance and the ERP must be developed and in effect within 18 months of coverage under this permit.

Permittees must develop and implement a plan to detect, identify and eliminate non-stormwater discharges, including illegal disposal, throughout the MS4 jurisdiction. This plan must also include the identification of hot spots. The permittee shall develop and implement standard procedures to be followed to investigate portions of the MS4 jurisdiction that, based on the results of field screening or other identification programs, indicate a reasonable potential of containing illicit discharges. Illicit discharge investigations, and the results of those investigations, shall be documented and include the locations, times, parameters and sampling results, discharge source, and any other pertinent information. The plan to eliminate identified illicit discharges should be completed within 90 days of the initial report, and the discharge eliminated as soon as practicable. All plans and procedures in the IDDE program must be documented in the SWMP.

As indicated in the PIE plan, the permittee must educate public employees, businesses, and the general public concerning the hazards and damage to water quality associated with illegal dumping and connections to the storm sewer, and the

improper disposal of waste. The PIE plan must also address non-stormwater discharges or flows as defined in sub-section 1.3.3.2 if the permittee identifies them as significant contributors of pollutants to its MS4.

The permittee shall develop a mechanism for the public to report (e.g., via hotline or website), suspected illicit discharges. The permittee shall specify the timeframe for initiating complaint investigations within the ERP, but not to exceed seven days from the receipt of the complaint. Documented illicit discharges shall be eliminated as soon as practicable with the ordinance or other regulatory mechanism initiated within seven days of the investigation. Documentation of illicit discharge reports, responses, and resolutions shall be maintained in the SWMP.

The permittee shall foster interagency coordination for hazardous waste or material spills response and cleanup. The permittee shall inform local spill-response agencies and/or TEMA (Tennessee Emergency Management Agency) of the potential negative impacts to surface water (and ground water) of spill clean-up activities. If a set of guidelines and procedures is not already in place, the permittee should initiate a cooperative effort to develop a set of guidelines and procedures that local responders will follow to minimize damaging effects that spill response activities might have on water resources.

4.2.4. Construction Site Stormwater Runoff Pollutant Control

Permittees shall develop, continue to develop, implement and enforce a construction site stormwater runoff pollutant control program. Newly designated permittees shall have this program implemented within 24 months of coverage under this permit. Currently permitted MS4 jurisdictions shall continue to implement existing construction site stormwater runoff pollutant control program and must have any updates to the program resulting from this permit or a Construction General Permit reissuance completed within 18 months of coverage under this permit. Compliance schedules will be extended into the next permit cycle for permittees that receive coverage in the middle of a permit cycle.

The program must address the reductions of pollutants in stormwater runoff from construction activities that result in a land disturbance of equal to or greater than one acre or less than one acre if part of a larger plan of common development or sale. The program must include the development, implementation and documentation of, at a minimum:

a. An ordinance or other regulatory mechanism to require erosion prevention and sediment controls (EPSC), as well as sanctions to enforce compliance. For newly designated permittees, this regulatory mechanism must be in place within 18 months of coverage under this permit. The enforcement sanctions must be identified in an ERP as indicated in sub section 4.5. In order for the program to be consistent with requirements of the future NPDES general permit for construction stormwater runoff, modifications to ordinances or other regulatory mechanisms for construction site runoff control must be implemented within 18 months of the reissuance of a Tennessee Construction General Permit (CGP, TNR100000).

APPENDIX B

ILLICIT DISCHARGE ORDINANCE

for the purpose of inspection. This includes the right to enter a property when it has a reasonable basis to believe that a violation of this ordinance is occurring or has occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this ordinance.

(17). Inspection of stormwater management facilities. Periodic inspections of facilities shall be performed as provided for in Section 6 of the City of Hendersonville Land Disturbance Ordinance and the Hendersonville Construction Manual.

Rev. 1/2005

(18). Records of installation and maintenance activities. Parties responsible for the operation and maintenance of a stormwater management facility shall make weekly records during construction and monthly records after acceptance 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.

(19). 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 ordinance, the City Engineer, after twenty day (20) 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 Engineer shall notify in writing the party responsible for maintenance of the stormwater management facility. Upon receipt of that notice, the responsible person shall have ten (10) 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 Engineer 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 impose a minimum fine of five hundred (500) dollars per day up to ten thousand (10,000) dollars per day.

13-308. Illicit discharges. (1). Prohibition of Illegal Discharges. No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

(a) Uncontaminated discharges from the following sources:

(1) Water line flushing or other potable water sources,

(2) Lawn watering with potable water,

(3) Diverted stream flows,
(4) Rising ground water,
(5) Groundwater infiltration to storm drains,
(6) Pumped groundwater,
(7) Foundation or footing drains,
(8) Crawl space pumps,
(9) Air conditioning condensation,

(10) Springs,
(11) Non-commercial washing, for example vehicles,
(12) Natural riparian habitat or wet-land flows,
(13) Swimming pools (if de-chlorinated - typically less than one PPM chlorine),
(14) Fire fighting activities such as hydrant testing, and
(15) Any other uncontaminated water source.

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

(c) Biodegradable dye testing is an allowable discharge, but requires a verbal notification to the authorized enforcement agency prior to the time of the test and may require a permit from other agencies.

(d) The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

(2). Prohibition of Illicit Connections.

(a) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.

(b) 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.

(c) A person is considered to be in violation of this ordinance if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

(3). 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 BMPs 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 compliance with the provisions of this section.

(4). 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 suspect ted release of materials which are resulting in, or may result in, illicit discharges or

pollutants discharging into stormwater, 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 and contact the City Engineer no later than the next business days. In the event of a release of non-hazardous materials, the person shall notify the City Engineer in person or by telephone or facsimile 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 Engineer 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 five (5) years.

(5). Suspension of MS4 Access. (a) Suspension due to Illicit Discharges in Emergency Situations. The City may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the authorized enforcement agency may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, or to minimize danger to persons.

(b) Suspension due to the Detection of Illicit Discharge. Any person discharging to the MS4 in violation of this ordinance may have their MS4 access terminated. The authorized enforcement agency will notify a violator of the proposed termination of its MS4 access. The violator may petition the authorized enforcement agency for reconsideration and hearing as outlined in the Land Disturbance Ordinance.

A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this Section, without the prior approval of the authorized enforcement agency.

(6). Industrial or construction activity discharge. Any person subject to an industrial

or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the City prior to the allowing of discharges to the MS4.

(7). Monitoring of discharges. Applicability. This section applies to all facilities that have storm water discharges associated with industrial activity, including construction activity.

(b) Access to Facilities.

(1) The City shall be permitted to enter and inspect facilities subject to regulation under this ordinance as often as may be necessary to

determine compliance with this ordinance. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the authorized enforcement agency.

(2) Facility operators shall allow the City ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.

(3) The City shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the authorized enforcement agency to conduct monitoring and/or sampling of the facility's storm water discharge.

(4) The City has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.

(5) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the City and shall not be replaced unless otherwise notified by the City. The costs of clearing such access shall be borne by the operator.

(6) Unreasonable delays in allowing the City access to a permitted facility are a violation of a storm water discharge permit and of this ordinance. A person who is the operator of a facility with an NPDES permit to discharge storm water associated with industrial activity commits an offense if the person denies the authorized enforcement agency reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this ordinance.

(7) If the City has been refused access to any part of the premises from which stormwater is discharged, and is able to demonstrate probable cause t believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this ordinance or any order issued hereunder, or to protect

the overall public health, safety, and welfare of the community, then the authorized enforcement agency may seek issuance of a search warrant from any court of competent jurisdiction.

(8). Requirement to prevent, control and reduce storm water pollutants by the

use of best management practices.The City requires identifying Best Management Practices for any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the U.S. The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of these structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the MS4. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section. These BMPs shall be part of a stormwater pollution prevention plan (SWPPP) as necessary for compliance with requirements of the NPDES permit.

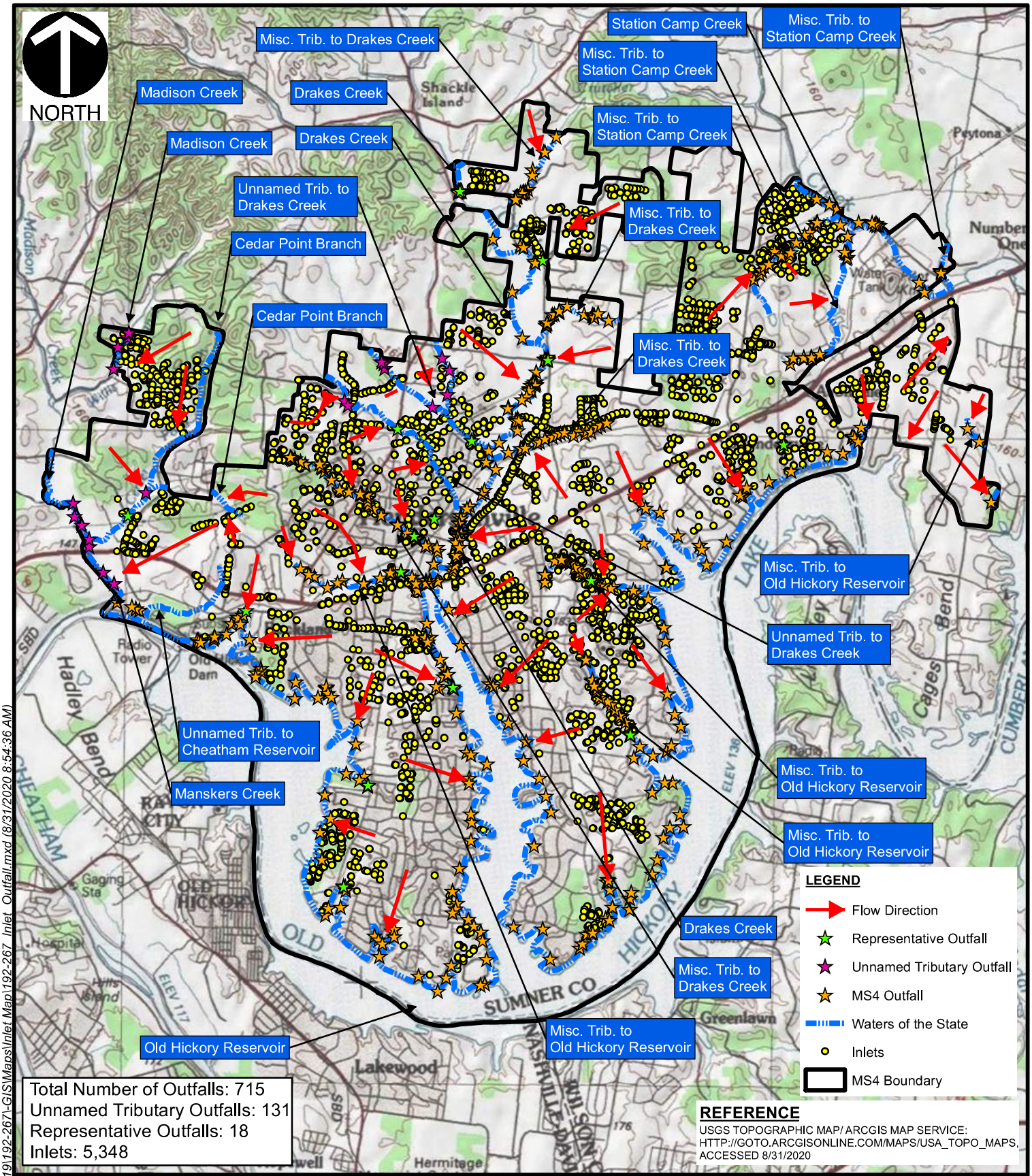
(9). Watercourse protection. Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

18-309. Enforcement. (1). Notice of Violation.

(a) Written Notice. Whenever the City finds that any permittee or any other person has violated or is violating this ordinance or a permit or order issued hereunder, the City 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 City Engineer. Submission of this plan in no way relieves the discharger of liability for any violations occurring before

APPENDIX C

STORM SEWER SYSTEM MAP



Civil & Environmental Consultants, Inc.
117 Seaboard Lane, Ste. E100 Franklin, Tennessee
615-333-7797 • 800-763-2326
www.cecinc.com

CITY OF HENDERSONVILLE
MS4 PERMIT
HENDERSONVILLE, SUMNER COUNTY, TN

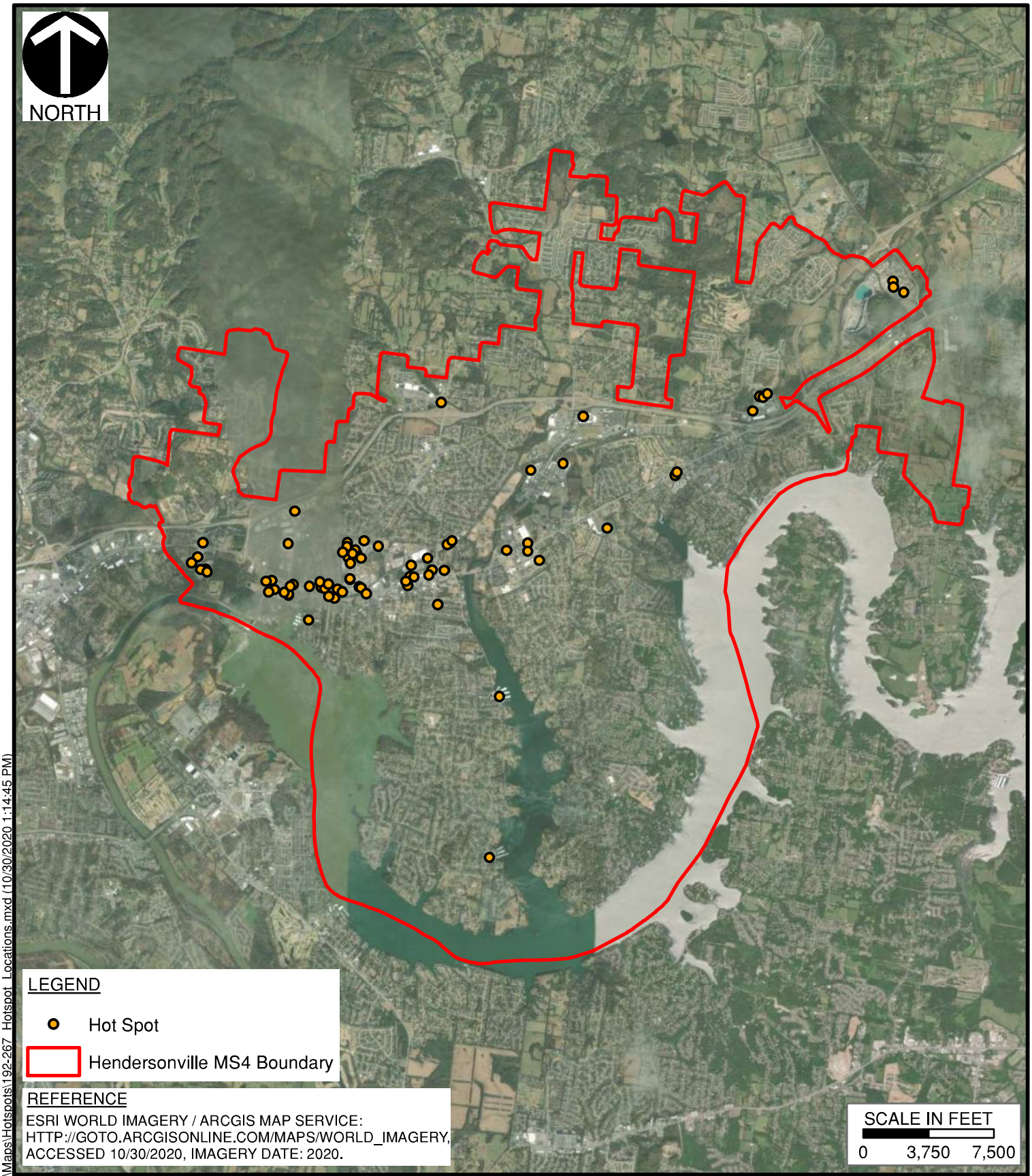
OUTFALL AND INLET LOCATIONS

DRAWN BY:	JTM	CHECKED BY:	JLW	APPROVED BY:	JLW	FIGURE NO:	2
DATE:	8/31/2020	SCALE:	1 " = 1.25 miles	PROJECT NO:	192-267		

\\SVR-NASH\svr-nash\projects\2019\192-267\-GIS\Maps\Inlet Map\192-267_Inlet_Outfall.mxd (8/31/2020 8:54:36 AM)

APPENDIX D

HOT SPOT MAP



Civil & Environmental Consultants, Inc.
117 Seaboard Lane, Ste. E100 Franklin, Tennessee
615-333-7797 • 800-763-2326
www.cecinc.com

CITY OF HENDERSONVILLE
MS4 PERMIT
HENDERSONVILLE, SUMNER COUNTY, TN

HOT SPOT LOCATIONS

DRAWN BY:	JTM	CHECKED BY:	JLW	APPROVED BY:	JLW	FIGURE NO:	1
DATE:	10/30/2020	SCALE:	1 " = 7,500 '	PROJECT NO:	192-267		

\\SVR-NASH\ P:\2019\192-267\-GIS\Maps\Hotspots\192-267_Hotspot_Locations.mxd (10/30/2020 1:14:45 PM)

APPENDIX E

HENDERSONVILLE IDDE SOP

Standard Operating Procedure: Illicit Discharge Detection and Elimination (IDDE)

Issue Date: 8/20/2020 Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Hendersonville has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Tennessee Department of Environment and Conservation. This permit authorizes the City of Hendersonville to discharge stormwater into waters of the State of Tennessee pursuant to the Tennessee Water Quality Control Act of 1977. Through the Stormwater Ordinance the City of Hendersonville has mandated that the discharge of pollutants into the municipal separate storm sewer system is a violation of ordinance and illicit discharges shall be located and eliminated. The City of Hendersonville has established an illicit discharge detection and elimination program to comply with City, State, and Federal water quality regulations. The components of this program involve visual inspection, screening, stream testing, identification and inspection of hotspots, and an illicit discharge reporting website.

1.0 Purpose

The purpose of this procedure is to identify and address any illicit discharges detected during storm sewer outfall inspections or otherwise reported illicit discharges impacting the municipal separate storm sewer system.

2.0 Scope

This procedure applies to City staff in Stormwater Division of the Public Works Department, specifically Stormwater Inspectors.

3.0 Responsibility

3.1 Stormwater Division Staff

The Stormwater Coordinator is responsible for keeping these procedures up to date, overseeing the illicit discharge detection and elimination program for compliance with regulatory requirements, and providing periodic training on illicit discharge detection and elimination.

3.2 Supervisors

Supervisors are responsible for ensuring stormwater ' ı (([' } u › o] v this procedure. Supervisors are to train their employees on how to follow these procedures, using the most recent version of the SOP.

3.3 Stormwater Inspectors

Personnel must follow the correct procedures in accordance with the latest versions of the SOP. Specific responsibilities are explained in the procedures described below.

4.0 Procedures

MS4 Outfall Inspections					
Date	***Location***	***Weather***	***Clear (Y/N)***	***Issues***	***Pictures***
4/16/2021	Caldwell	48*/ Sunny	Y	No Issues	N
4/16/2021	Carden	48*/ Sunny	N	Sediment Buildup	Y
4/16/2021	Colonial	48*/ Sunny	Y	No Issues	N
4/16/2021	Curtis Crossroads	52*/ Sunny	Y	No Issues	N
4/16/2021	Deer Pointe	59*/ Sunny	Y	No Issues	N
4/16/2021	Devonshire	60*/ Sunny	Y	Pipes caving in, water undercutting, structure cracked	Y
4/16/2021	DC-Stop 30	65*/ Sunny	N	Sediment Buildup at west side of bridge	Y
4/16/2021	English Ct.	58*/ Sunny	Y	No Issues	N
4/16/2021	Hunters	48*/ Sunny	N	Sediment buildup	Y
4/16/2021	Lock #3	52*/ Sunny	Y	No Issues	N
4/16/2021	New Shackle	49*/ Sunny	N	Outfall starting to be undercut under SR 258/ Sediment B.U.	Y
4/16/2021	Pres Blon	51*/ Sunny	Y	No Issues	N
4/16/2021	Sanders Ferry	51*/ Sunny	Y	No Issues	N
4/16/2021	Sequoyah	58*/ Sunny	Y	No Issues	N
4/16/2021	Southburn	48*/ Sunny	Y	No Issues	N
4/16/2021	Trousdale	58*/ Sunny	N	Sediment buildup on east side	Y
4/16/2021	Falling Leaf	50*/ Sunny	N	south side box is blocked	Y
4/16/2021	NSI Drakes Creek	50*/ Sunny	Y	No Issues	N

APPENDIX G

ENFORCEMENT RESPONSE PLAN

Enforcement Response Plan

(ERP)

City of Hendersonville
Tennessee

Prepared by:
The City of Hendersonville Stormwater Division August 2018
101 Maple Drive North, Hendersonville, TN 37075

Table of Contents

I. Purpose

The intent of this document is to provide guidance in enforcing the City of Hendersonville Municipal Code, Chapter 18, Stormwater Ordinance, and to help eliminate illicit discharges to the City's stormwater system. This plan provides consistent enforcement responses for similar violations and circumstances. This document is a guide; any of the enforcement responses may be used at the City's discretion. The City may also choose to pursue an enforcement case by skipping intermediate steps.

II. Background

Pursuant to Section 4.5 of the Small MS4 General NPDES Permit, the City of Hendersonville has developed an Enforcement Response Plan (ERP) that outlines the enforcement actions to be taken for noncompliance and addresses repeat violations through progressive enforcement, as needed, to achieve compliance. These incidents include actions to be taken for common violations associated with the Construction Program, the Illicit Discharge Detection and Elimination Program, and the Post-Construction Program; all of which are components of the City of Hendersonville Stormwater Management Program.

In addition to meeting the requirements of Section 4.5 of the Small MS4 General NPDES Permit, the ERP serves as a guidance document for City Stormwater Division staff when addressing the variety of different noncompliance incidents that may be encountered. The City must have the legal ability to employ progressive enforcement actions and to escalate enforcement responses where necessary to address persistent non-compliance, repeat or escalating violations, or incidents of major environmental harm. The ERP must allow for the maximum penalties per day for each day of violation as specified in TCA §68-221-1106 . Enforcement procedures are outlined in the ERP.

Chapter 2, Section 18-210 of the Stormwater Ordinance states:

> *(1) Enforcement authority.*
>
> *The City Engineer or his/her designees shall have the authority to issue notices of violation and citations, and to impose the penalties provided in this section. Measures authorized include:*

(a) Written Notices – Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action. Written notices may include Consent Orders and/or a Show Cause Hearing.

(b) Consent Orders – The City Engineer is empowered to enter into consent orders. Such orders will include specific action to be taken by the person to correct the noncompliance within a time period also specified by the order.

(c) Show Cause Hearing – The City Engineer may order any person who violates this ordinance or permit or order, to show why a proposed enforcement action should not be taken.

(d) Compliance Order – The City Engineer directs the violator to follow a specific time period, adequate structures, devices, to be installed or procedures implemented and properly operated.

(e) Cease and Desist Orders– The City Engineer may issue an order to cease and desist all such violations all such violations and direct the violator to comply, take appropriate remedial or preventative action.

The ERP should be used only as a guide, while recognizing that each situation is unique. The provisions of this ERP are not mandatory. Actual enforcement procedures should consider any unusual aspects of a violation or condition, as well as special characteristics of an enforcement action in determining the proper response.

III. Enforcement Procedures

The ERP designates several enforcement options for each type (or pattern) of noncompliance. The intent of the ERP is to provide direction for appropriate enforcement response and to ensure consistent enforcement for similar violations and circumstances. Factors that will be evaluated when determining the appropriate response are as follows:

1) The harm done to the public health or the environment;
2) Whether the civil penalty imposed will be substantial economic deterrent to the illegal activity;
3) The economic benefit gained by the violator;
4) The amount of effort put forth by the violator to remedy this violation;
5) Any unusual or extraordinary enforcement costs incurred by the municipality;

6) The amount of penalty established by ordinance or resolution for specific categories of violations; and
7) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

Escalating Enforcement Response

Escalating enforcement response will be used for recurring violations and failure to achieve compliance subsequent to informal or formal enforcement. A recurring violation is one in which the same type of violation occurs on a project or on multiple projects by the same operator, or any other pattern of noncompliance is shown.

Violations Falling Under more than one Category

Violations that fall under more than one category in the enforcement response plan will be addressed through the more severe enforcement action. All alleged violations will be included in the more severe action. For example, if a construction site has a silt fence failure, but has also dumped concrete into a stream on-site the property owner will face enforcement action for the more severe violation of polluting the stream.

Recovery of Damages and Costs

In addition to assessing and collecting civil penalties, the City may recover:

- All damages proximately caused by the violator to the City, which may include any reasonable expenses incurred in investigating violations, and enforcing compliance, or any other actual damages caused by the violation. As stated in City Ordinance 18-209(4).
- The costs of the City's maintenance of stormwater facilities when the user of such facilities fails to maintain them.

Timeframes for Enforcement Responses

- Violations will be identified and documented within 2 business days of receiving compliance information.
- Initial enforcement responses (informal or formal) will occur within 10 business days of identifying a violation.
- Follow up actions for continuing or recurring violations will be taken within 10 business days of the initial enforcement response.
- Violations which threaten health, property, or environmental quality are considered emergencies and will receive immediate response such as the issuance of a stop work order.

Requirements for Chronic Violators

Chronic violators shall be defined as any person that repeats violations of the Stormwater Ordinance at least three times in a one year period. The violations are tied to the person rather than a project or site, meaning that the violations do not have to occur on the same project. The violations do, however, need to be of a similar nature, such as all violations of construction standards or all violations involving illicit discharges.

Once an operator has been labeled as a chronic violator they will remain as such until they have operated for a one year period with no documented violations of the Stormwater Ordinance. Chronic violators will be treated differently than other operators. The Stormwater Division will inspect all projects on which chronic violators are involved at a higher frequency than other projects. The Stormwater Division will also double the civil penalties issued to chronic violators, as long as it can do so and stay within the maximum penalty allowed by the Ordinance and T.C.A. The Stormwater Division will also escalate enforcement responses for chronic violators. This means that for a given violation that would normally result in just a Notice of Violation, the chronic violator will likely receive a civil penalty.

A violator that meets the criteria of this section will be notified of such in the Notice of Violation or other enforcement documentation that is sent to the violator for the third and qualifying violation.

IV. Identifying and Investigating Instances of Non-Compliance

There are many activities associated with the identification and investigation of noncompliance. A brief description of these activities is provided in this ERP. The activities that facilitate the identification and investigation of noncompliance are as follows:

Routine Permit Inspections **–** The City issues land disturbance permits for certain construction activities taking place within the city limits of Hendersonville. Once a permit is issued for a project, routine compliance inspections are conducted of the project to assure that the provisions of the permit, the ordinance, and the stormwater pollution prevention plan (SWPPP), if applicable, are being met. Any violations documented during routine inspections will initiate enforcement activities.

Complaint Investigations – The City investigates all stormwater related complaints. Complaints are received in a number of ways. Complaints are received via phone calls, and the City's stormwater web page, and are often called in by other city departments. Violations documented as a result of complaint investigations will initiate appropriate enforcement activities.

V. Description of Enforcement Actions

Informal Notice:

Verbal Notification: Verbal notifications by telephone or in person provide an immediate notification of violations. In general, verbal notifications are used for minor isolated violations or as an initial step leading to an escalated enforcement response. All verbal notifications related to enforcement or the investigation of suspected violations are documented on an inspection report and placed in the respective project file.

Written Notification: Written notification may include the copying of an inspection report to a site operator. This could be accomplished by handing a copy of the report to the operator or a representative that is present at the site, or forwarding a copy of the report to the operator by fax or e-mail. The inspection report will document any compliance issues that need to be addressed at the site. This written notification may or may not be followed up with a more formal means of notification, such as a Notice of Violation.

Notice of Violation:

A Notice of Violation (NOV) is a written notice to the noncompliant operator that a stormwater violation has occurred. A NOV includes a statement detailing the legal authority under which the City issued the NOV, a description of the violation(s), and the date(s) the violation(s) occurred. The NOV may require a response from the Operator that details the causes of the violation(s), and the corrective actions taken to correct the violation and to prevent similar violations from occurring. A NOV is used to notify the Operator and document the violation. The NOV may assess civil penalties or a damage assessment and may require a specific remedial action of the user.

Withholding of Codes Inspections and/or Building Permits

Codes Department inspections and Building Permits are withheld when the Operator of the suspect site has failed to acknowledge the City's attempts to gain site compliance. When the City issues a Notice of Violation a deadline for site compliance is listed. If the Operator fails to bring the site back into compliance by the deadline the Stormwater Inspector will notify the Codes Department to hold all permits and inspections. Only when the site has been brought back into compliance will the site be released.

Stop Work Order

A Stop Work Order is an order issued to the Operator by the City requiring that all work at the site cease until such time as the violation is corrected. The stop work order can be posted at the site or can be sent as part of a Notice of Violation. A stop work order will generally be utilized when the nature of the violation is such that it is imperative that the correction of the violation take place prior to any further work being conducted on the site or as an escalation option when an NOV is disregarded or violation(s) have not been corrected. If the City is unable to withhold Codes Inspections and Building Permits due to the stage of development, the City may skip the step and proceed with a Stop Work Order.

Show Cause Hearing

A Show Cause Hearing is a formal meeting requiring the Operator to appear, explain its noncompliance, and show cause as to why more severe enforcement actions against the user should not go forward. The meeting may also serve as a forum to discuss corrective action and compliance schedules. An example of when a Show Cause Hearing will be utilized would be when a requirement is not completed on time and a civil penalty is being considered. The City is not, however, required to hold a Show Cause Hearing prior to assessing a civil penalty.

Civil Penalties

A civil penalty is a punitive monetary charge assessed by the City rather than a court. The penalty amount must be authorized in the stormwater ordinance. The purpose of the penalty is to recover the economic benefit of noncompliance and to deter future violations. The range of penalties allowed by the Hendersonville Stormwater Ordinance and by TCA §68-221-1106 is a minimum of fifty dollars ($50.00) to a maximum

of five thousand dollars ($5,000) per day of violation. When assessing a civil penalty the following factors are considered:

I. The harm done to the public health or the environment;
II. Whether the civil penalty imposed will be substantial economic deterrent to the illegal activity;
III. The economic benefit gained by the violator;
IV. The amount of effort put forth by the violator to remedy this violation;
V. Any unusual or extraordinary enforcement costs incurred by the municipality;
VI. The amount of penalty established by ordinance or resolution for specific categories of violations; and
VII. Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

VI. Construction Noncompliance

All sites that require a Land Disturbance Permit (LDP), TDEC General Construction (CGP) coverage, or TDEC Aquatic Resource Alteration Permit (ARAP) coverage are subject to the enforcement actions outlined in this section. Two noncompliance situations are addressed: permit non-filers and permit violations.

Permit Non-Filers

Any site that falls under the requirements of obtaining a LDP, a TDEC CGP Notice of Coverage (NOC), or TDEC ARAP are required to have the approved permit on site. If it is found the site has not obtained proper coverage, a Stop Work Order will be issued immediately. Before any further work, with the exception of stabilization of the site, is performed, proper permit coverages must be obtained. In the event the violator does not stop work immediately, the violator will be assessed penalties as outlined above and the local TDEC Environmental Field Office (EFO) will be notified. The project location, owner/operator, project size, and records of communication will be provided to the local TDEC EFO in Nashville, TN.

Permit Violations

Any site covered under a LDP, a TDEC CGP, or a TDEC ARAP will be subject to inspections as outlined in the City of Hendersonville MS4 Construction Site Audit Report (Appendix A). Inspections will be performed evaluating compliance with

the permits listed above. If non-compliance is noted, it will be documented on the City of Hendersonville MS4 Construction Site Audit Report.

In cases of minor violation(s), a call to the site contact will be made, informing them of the violation and outlining a timeline for correction. After the given timeline has expired, and no corrective action has been taken, a Notice of Violation (NOV) will be issued. Once an NOV is issued, a timeline, usually 10 days, will be given for compliance. Depending on the phase of construction, a hold on Codes permitting and inspections will be issued. A Stop Work Order (SWO) may be issued when deemed appropriate by the Stormwater Division. If substantial progress is not made toward compliance, Civil Penalties will be assessed, as outlined above.

In cases of major violation(s), a NOV and/or SWO will be issued immediately. Once an NOV or SWO is issued, a timeline, typically 10 days, will be given for compliance. If substantial progress is not made toward compliance, Civil Penalties will be assessed, as outlined above.

In cases of violations that require immediate action to prevent major damages to Tennessee Waters of the State, and if the contractor is unable to take immediate action, the expenditure of public funds for prevention and/or mitigation of damages shall be compensated in such amount as to offset the public funds expended. This will in no way reduce or offset the liability of the owner with respect to damages incurred.

If the City is unable to bring an NPDES permitted discharge into compliance using its enforcement mechanisms and protocol, the local TDEC EFO in Nashville, TN will be notified and provided the project location, owner/operator information, project size, and records of communication, including along with a summary and copies of escalated enforcement actions taken.

VII. Illicit Discharge Noncompliance

Pursuant to the City's Small MS4 General NPDES permit, non-stormwater discharges into the City's MS4 are defined as illegal, except those listed in Title 18, Chapter 3, Section 308, of the City of Hendersonville Stormwater Ordinance. The City has developed a program to address these illicit discharges. The components of this program that involve enforcement response are Representative Outfall Screening through Visual Stream Assessments, Hotspots, Stormwater Hotline, and Stream Monitoring. Illicit discharge investigations, and the results of those investigations, shall be documented and include the locations, times, parameters and sampling results, discharge source, and any other pertinent information. Illicit discharge complaints shall be investigated within 2 business days of receiving the initial report. The plan to eliminate identified illicit discharges should be completed within 90 days of the initial report, and the discharge eliminated as soon as practicable.

Representative Outfall Screening

If at the time the representative outfall inspection, the facility/property is found to be in non-compliance with the City of Hendersonville Stormwater ordinance, a verbal warning will be issued. The owner of the facility/property will be given a specified timeline to bring the site into compliance. After the time specified in the timeline has expired, a re-inspection will take place. If the owner has not brought the site into compliance, the City will issue a Notice of Violation.

Upon issuance of the Notice of Violation, the owner/operator of the property/facility may be subject to fines and/or remediation costs outlined above and in Chapter 3, Section 310 of the Stormwater Ordinance.

In cases where inspection reveals an illicit discharge that poses an immediate threat to public health and safety or to the environment, the City will issue a Notice of Violation and call necessary agencies/personnel to assist with correcting the violation. The owner may be subject to repayment to the City for costs involved with the corrective action.

Hotspots

If at the time of inspection, the facility/property is not in compliance with the City of Hendersonville Stormwater Ordinance, a verbal warning will be issued. The owner of the facility/property will be given a specified timeline to bring the site into compliance. After the time specified in the timeline has expired, a re-

inspection will take place. If the owner has not brought the site into compliance, the City will issue a Notice of Violation, as outlined above.

Upon issuance of the Notice of Violation, the owner/operator of the property/facility will be subject to fines and/or remediation costs outlined above and in Chapter 3, Section 310 of the Stormwater Ordinance.

In cases where inspection reveals an illicit discharge that poses an immediate threat to public health or the environment, the City will issue a Notice of Violation and call necessary agencies/personnel to assist with correcting the violation. The owner may be subject to repayment to the City for costs involved with the corrective action. Documented illicit discharges shall be responded to no more than 7 days from detection, and eliminated as soon as possible.

Hotline

The Stormwater Hotline is the Stormwater Division's main line (615) 822-1016. As reports are received on water resource issues, they are inventoried in the Enforcement Tracking Log. All calls are responded to within 2 business days. If the report is verified by the Stormwater Division as an Illicit Discharge, the site is inspected and, if necessary, added to the Hotspot Inventory Map. Procedures will then be performed as outlined above for Hotspots.

Stream Testing

As the City performs analytical monitoring of impaired streams as required in Section 5.1 of its Small MS4 General NPDES permit, any pollutant loadings that can be traced back to hotspots or outfalls will be addressed as outlined in the above procedures.

VIII. Post Construction Non-Compliance

BMP/SCM Maintenance

Prior to approval of any site plan and/or plat that will have any permanent stormwater BMP/SCMs, an *Inspection and Maintenance Agreement for Stormwater Facilities* is required to be executed and recorded. This agreement outlines the maintenance and inspection responsibilities of the owner and enforcement actions if these requirements are not met.

APPENDIX H

IDDE COMPLAINT INVESTIGATION EXAMPLE

Helen Morrison

From: John Henry <jhenry@hvillepd.org>
Sent: Tuesday, March 2, 2021 4:53 PM
To: Helen Morrison
Subject: 103 Island DR.
Attachments: IMG_0558.JPG; IMG_0559.JPG; IMG_0561.JPG

Helen,

Do you remember us getting a call from Alderman Brown at 103 Island Dr., a couple years ago where the renter of 103 Island Dr. had some plumbing problems and he was draining his plumbing into the drainage ditch out in front of his house. There was a tunnel in the middle of his ditch that ran underneath the street and over into the yard across the street from him. What he is doing is blowing all his leaves into the ditch and they are plugging up the ditch. Since the large amount of leaves are considered debris, I'm going to send him a letter for the that. All he would have had to do was mulch them up with his mover and that would have solved the problem. I was just checking with you to see if there was a storm water violation for plugging up the ditch. I'm going to attach some pics on about 3 or 4 emails for you to see what I'm talking about. The homeowner is Deborah Bills who rents to her two sons. Her sons are no strangers to the criminal justice system. Normally, in the past, they wouldn't answer the door when I knocked and wouldn't return my phone calls.

Thanks,

John

103
03/02/2021

03/02/2021

Helen Morrison

From: John Henry <jhenry@hvillepd.org>
Sent: Wednesday, March 3, 2021 1:34 PM
To: Christopher Rapp
Cc: Helen Morrison
Subject: Fw: 103 Island Dr.
Attachments: SKM_458e21030313370.pdf

Chris,

Attached is a copy of the property record for 103 Island Dr. The owner is Deborah Bills 615-264-2138, and she rents to her son Don Bills.

Thanks, and Good Luck,

John

Don Bills - Rents From his mother

Unofficial Property Record Card - Sumner, TN

General Property Data

Parcel ID	164O C 016.00 000	**Account Number**	CHEROKEE WOODS, SEC 8 140
Prior Parcel ID			
Property Owner	BILLS DEBORAH S - 615-264-2138	**Property Location**	103 ISLAND DRIVE
		Property Use	Residential
Mailing Address	103 LEEWARD PT	**Most Recent Sale Date**	6/16/2020
		Legal Reference	5247-26
City	HENDERSONVILLE	**Grantor**	BILLS DEBORAH S
Mailing State	TN Zip 37075	**Sale Price**	0
ParcelZoning	N/A	**Land Area**	0.000 acres

Current Property Assessment

Card 1 Value	Building Value	Xtra Features Value	Land Value	Total Value
	128,000	4,000	104,300	236,300

Building Description

Building Style SINGLE FAMIL	**Foundation Type** CONTINUOUS F	**Flooring Type** CARPET COMBI
# of Living Units 1	**Frame Type** NONE	**Basement Floor** N/A
Year Built 1968	**Roof Structure** GABLE/HIP	**Heating Type** HEAT & COOLI
Building Grade AVERAGE	**Roof Cover** COMPOSITION	**Heating Fuel** ABOVE AVERAG
Building Condition N/A	**Siding** COMMON BRICK	**Air Conditioning** 0%
Finished Area (SF) 1320	**Interior Walls** PANEL-PLAST-	**# of Bsmt Garages** 0
Number Rooms 0	**# of Bedrooms** 0	**# of Full Baths** 0
# of 3/4 Baths 0	**# of 1/2 Baths** 0	**# of Other Fixtures** 6

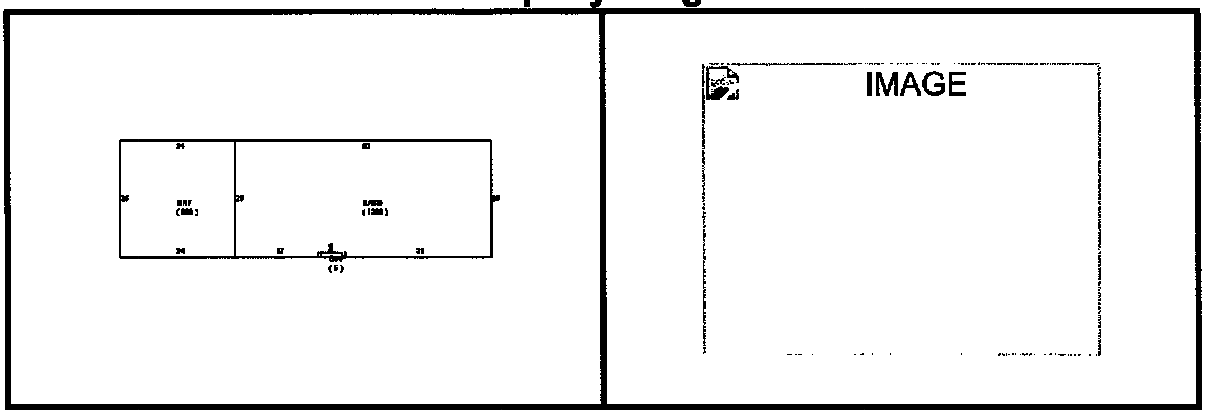
Legal Description

Plat: 4 **Page:** 36 **Block:** **Lot:** 140 **Subd:** CHEROKEE WOODS, SEC 8

Narrative Description of Property

This property contains 0.000 acres of land mainly classified as Residential with a(n) SINGLE FAMIL style building, built about 1968 , having COMMON BRICK exterior and COMPOSITION roof cover, with 0 commercial unit(s) and 1 residential unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images



Helen Morrison

From: Helen Morrison
Sent: Wednesday, March 3, 2021 8:13 AM
To: Christopher Rapp
Subject: RE: 103 Island Dr:

Okay, send them a letter advising them what the ordinance says about blocking drainage.

Respectfully,
Helen Morrison
Stormwater Coordinator
City of Hendersonville
615-590-4649

From: Christopher Rapp <crapp@hvilletn.org>
Sent: Wednesday, March 3, 2021 8:12 AM
To: Helen Morrison <hmorrison@hvilletn.org>
Subject: 103 Island Dr:

Helen,

Attached are pictures from 103 Island Dr. there is a large amount of leaves in the ditch and the pipe under the roadway is completely clogged up. It appears there is a small ditch that has either been cut out by water or done by hand. Water definitely has no where to go but over the roadway.

Sent from my iPhone

City of Hendersonville

101 Maple Drive North • Hendersonville, TN 37075 • Telephone (615) 822-1000
www.hvilletn.org

Date: 3/3/2021

Deborah Bills
103 Leeward Pt
Hendersonville, TN 37075
615-264-2138

RE: 103 Island Dr.

Dear Ms. Bills:

On 3/3/2021, I received a drainage complaint at 103 Island Dr, the complaint was that there were old leaves in the ditch near the roadway in front of the property. I did go out to the property and I did observe that there was many leaves blocking the ditch and the drainage pipe that goes underneath the roadway. I attempted to contact someone at the house and was unable to. It is a violation of city ordinance 18-108 to obstruct the natural flow of water. The ditch will have to be cleaned out immediately, if the deficiency is not addressed, you may be imposed fines and/or civil penalties.

If there are any questions concerning regarding this notice of violation, please contact my office at 615-590-4659.

Sincerely,

Chris Rapp
Erosion Control Enforcement Officer
City of Hendersonville

Helen Morrison

From: Christopher Rapp
Sent: Friday, April 16, 2021 10:37 AM
To: Helen Morrison
Subject: 103 island update

Helen,

Attached are pictures from 103 island dr, the ditch has been cleaned out. I'll send. The letter when I get back to the office

Sent from my iPhone

City of Hendersonville
Tennessee
®

CITY OF HENDERSONVILLE
LAND DISTURBANCE PERMIT CHECKLIST

Applicant's Name:	
Application Date:	

#	GENERAL REQUIREMENTS:	INCLUDED?	N/A
1	Completed Application with Application Fee		
2	Include a copy of all required permits		
	TDEC Permits (NOC CGP, ARAP, Sinkhole UIC, etc.)		
	USACE Permits (Section 404, etc.)		
	TVA Permits		
3	Plans (EPSC, Site Layout, Grading Plan, Landscaping Plan, etc.)		
4	Drainage report		
5	USDA Web Soil Survey for the subject site		
6	FEMA FIRM for the subject site		
7	National Wetlands Inventory Overlay for the subject site		
8	Inspection and Maintenance Agreement with Long Term Maintenance Plan		

#	SPECIFIC PLAN REQUIREMENTS:	LOCATION OF REQUESTED INFORMATION	N/A
9	Show and label the 100-year floodplain		
10	Label all streams (as defined in Construction General Permit) adjacent to the site. Note if the site drains to waters with unavailable parameters (habitat alteration or siltation) or exceptional TN waters.		
11	Show and label any required buffers. Show the stream buffer sign locations. Hendersonville requires a non-average 30' stream buffer.		
12	Install High Visibility Fencing around the hydrologic features		

City of Hendersonville
Tennessee
®

CITY OF HENDERSONVILLE
LAND DISTURBANCE PERMIT CHECKLIST

13	Show the survey benchmark, property lines, ROW lines, and easements		
14	Label the roadways		
15	Show Limits of disturbance. The limits of disturbance should encompass all EPSC measures and not overlap them in the plans. Note the acreage of the limits of disturbance.		
16	Label the site outfalls. Note the acreage of the watershed to each outfall and approximate slope for each stage		
17	Note the TDEC NOC tracking number on the plans if applicable		
18	Note the FEMA information for the site. List the community map, panel number, and effective date on the plans.		
19	Add a note stating that the Site Designer must certify that all initial EPSC measures are installed per the plan and details prior to beginning grading operations. The site designer must also perform a site assessment after 30 days of construction within watershed(s) for outfalls with drainage areas greater than or equal to 10 acres (or 5 acres if draining waters with unavailable parameters for siltation or habitation alteration or to ETWs).		
20	Add a note stating the Contractor is required to sweep the streets daily when construction is active where the construction exit(s) are located		
21	Add a note stating that all disturbed areas must be stabilized within 14 days of any stoppage in work to the area		
22	Add a note stating that all slopes 35% or steeper shall be stabilized with EPSC matting or sod. Slopes steeper than 35% must be stabilized within 7 days of stoppage in work to the area.		
23	Add a note stating that the Contractor shall repair/replace any EPSC measures that are failing or in disrepair as indicated on the Twice Weekly TDEC Construction Inspection Report (Appendix C of the Construction General Permit) and/or when notified by the City Stormwater Inspector		
24	Add a note stating that dewatering practices comply with the TDEC BMP Manual's dewatering criteria		
25	Add a note stating the proposed construction sequence – A description of when EPSC measures are to be implemented in relation to construction milestones and how permanent stormwater control measure(s) (SCMs) will be protected during construction		

City of Hendersonville
Tennessee ®

CITY OF HENDERSONVILLE
LAND DISTURBANCE PERMIT CHECKLIST

#	COVER SHEET:	INCLUDED?	N/A
26	Include the project name and site address		
27	Include Owner and Engineer's Information		
28	Provide a vicinity map with north arrow		

#	EXISTING CONDITIONS / DEMOLITION SHEET:	INCLUDED?	N/A
29	Existing Topography		
30	Tree Survey and Tree Removal (To be reviewed by Planning Department)		
31	Existing utilities & easements (storm sewer, gas, electric, sanitary sewer, etc.)		
32	Sufficient survey downstream of outfalls is required to assist in reviewing potential impacts		

#	EPSC STAGE 1 PLAN (PRE-DEVELOPMENT CONDITIONS):	INCLUDED?	N/A
33	Show and label the existing contours		
34	Show the existing site features and stormwater system		
35	Show the existing forest line		
36	Show any haul roads		
37	Show any stream crossings		
38	Show any parking areas, and/or equipment staging areas that may be required prior to the roadway installation. Provide appropriate pollution prevention measures such as fuel tank secondary containment.		
39	Provide perimeter EPSC measures		
40	Provide the construction exit(s) (include a sight triangle)		

41	Provide concrete wash-down location		
42	Provide any required sediment basins or traps		
43	Locate stockpile areas. Provide EPSC measures around stockpile locations.		
44	Provide outlet protection for all concentrated discharges		
45	Provide check dams in all channels receiving drainage from disturbed areas. These do not always need to be rock check dams. Specify weir height and spacing.		
46	Provide all other EPSC measures required to control sediment during the initial stage of construction		

#	**EPSC STAGE 2 PLAN:**	**INCLUDED?**	**N/A**
47	Intermediate contours are required for Pre-Roadway Binder Conditions for projects with roadways to be dedicated to the City		
48	Show and label the existing and proposed contours		
49	Show the proposed site layout as it will exist during pre-binder conditions. Include the outline of the roadway		
50	Show the proposed stormwater features and any existing stormwater features to remain		
51	Adequate perimeter EPSC measures, the construction exit, and concrete wash-down locations must remain in place		
52	Sediment basins/traps should remain in place unless replaced by permanent detention ponds		
53	Sediment should be controlled as close to the disturbance as possible to prevent sediment travelling across the site. Perimeter EPSC measures should be considered secondary treatment.		
54	Provide inlet protection for all proposed inlets that will receive flow at this stage		
55	Provide outlet protection for all concentrated discharges		
56	Provide check dams in all channels receiving drainage from disturbed areas		

City of Hendersonville
Tennessee
®

CITY OF HENDERSONVILLE
LAND DISTURBANCE PERMIT CHECKLIST

#	EPSC STAGE 3 PLAN (POST ROADWAY ASPHALT CONDITIONS):	INCLUDED?	N/A
57	Show and label the existing and proposed contours		
58	Show the final site layout including all stormwater infrastructure		
59	The concrete wash-down location should remain in place		
60	Provide "FlexStorm Catch It" (or equivalent as approved by the City) inlet protection for all inlets		
61	Provide any temporary EPSC measures that could not be installed until Stage 2 was complete		
62	Note which EPSC measures show in Stage 3 are permanent (such as culvert outlet protection). Call-out all stabilization measures for the site. Include seeding specifications, including temporary and permanent seed, soil amendments based on site specific soil test(s), mulch, seeding schedule and/or sod specifications and planting schedule.		

#	EPSC DETAIL SHEETS:	INCLUDED?	N/A
63	Provide details for all EPSC measures show in Stages 1-3		
64	Details must meet minimum design criteria specified in TDEC EPSC Handbook		
65	Provide a stream buffer sign detail		

#	DRAINAGE REPORT (STAMPED AND SEALED):	INCLUDED?	N/A
66	Include drainage areas to EPSC measures. For example: most down gradient check dam within ditch, each contiguous section of silt fence, sediment trap, sediment basin, diversion ditch, slope drain, inlet protection, outlet protection.		
67	Label the time of concentration, CN Value (or "c" factor), flow arrows, labeled contours, and the drainage area to each outfall on a drainage map.		
68	Provide a plan to mitigate any increased runoff to an outfall		

City of Hendersonville
Tennessee
®

CITY OF HENDERSONVILLE
LAND DISTURBANCE PERMIT CHECKLIST

#	CHECK DAM CALCULATIONS:	INCLUDED?	N/A
69	Ensure channels with check dams have the capacity to convey the 2-year 24-hour storm (or 5-year 24-hour storm if draining to waters with unavailable parameters for siltation or habitat alteration or exceptional TN waters) without overtopping the channel		

#	SEDIMENT TRAP AND SEDIMENT BASIN CALCULATIONS:	INCLUDED?	N/A
70	Sediment traps/basins must be able to treat the 2-year 24-hour storm (or 5-year 24-hour storm if draining to waters with unavailable parameters for siltation or habitat alteration or exceptional TN waters)		
71	Provide calculations showing sediment traps/basins can safely pass the 25-year 24-hour storm		
72	Include stage/storage tables to show the 2-year 24-hour, 5-year 24-hour, and 25-year 24-hour stormwater elevation in the sediment trap/basin meets the requirements of the TDEC BMP Manual		

#	DIVERSION DITCH CALCULATIONS:	INCLUDED?	N/A
73	Provide calculations showing ditches are designed to handle the 2-year 24-hour storm (or 5-year 24-hour storm if draining to waters with unavailable parameters for siltation or habitat alteration or exceptional TN waters)		
74	Note the ditch dimensions, slope, manning's n, stabilization method and velocity		
75	Provide supporting calculations for erosion resistance		

#	TEMPORARY CULVERT CALCULATIONS:	INCLUDED?	N/A
76	Provide size and quantity along with supporting calculations		

#	OUTLET PROTECTION CALCULATIONS	INCLUDED?	N/A
77	Provide size and material along with supporting calculations		

City of Hendersonville
Tennessee
®

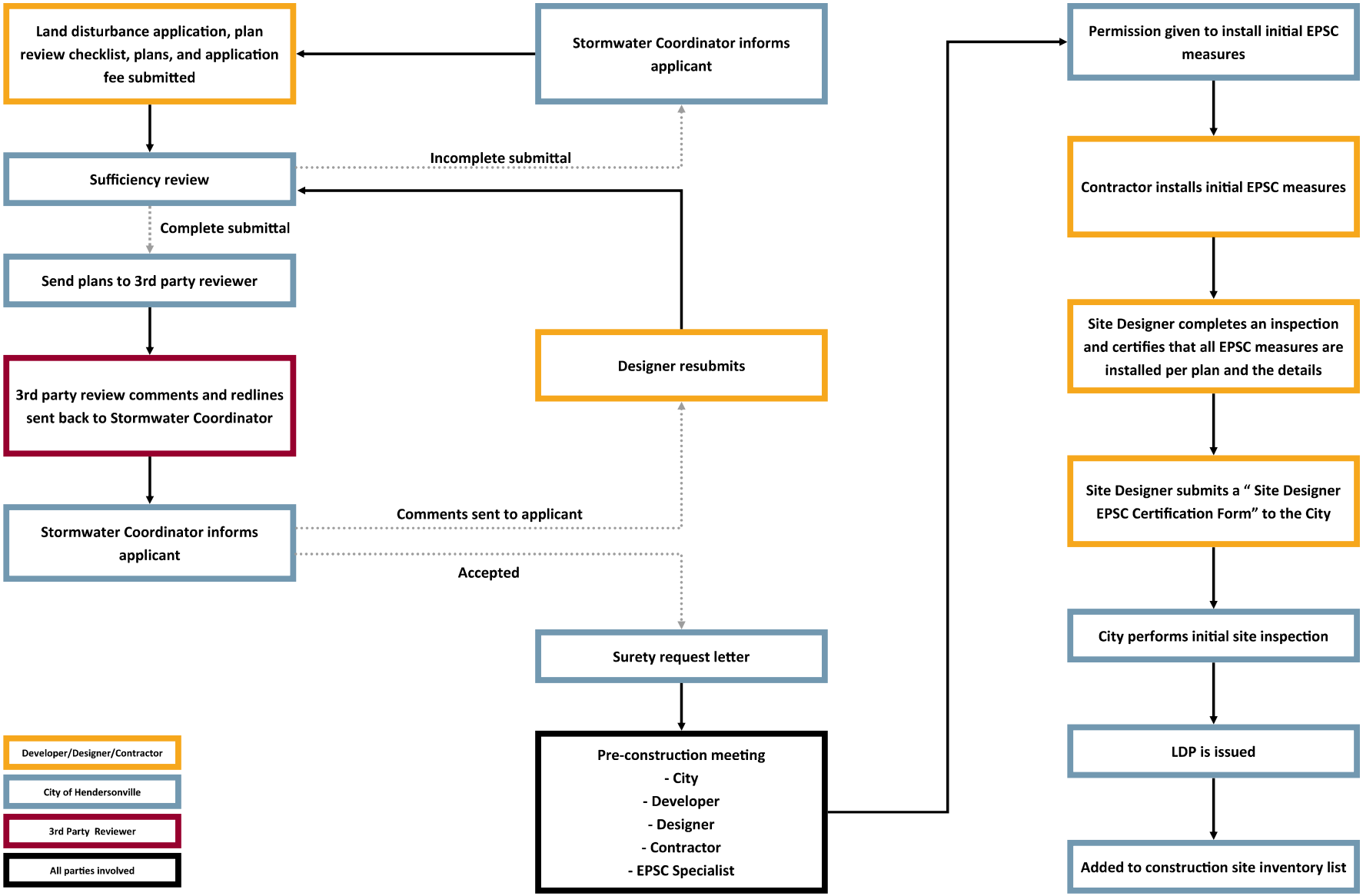
CITY OF HENDERSONVILLE
LAND DISTURBANCE PERMIT CHECKLIST

#	SILT FENCE CALCULATIONS:	INCLUDED?	N/A
78	Demonstrate each contiguous section of silt fence has a minimum of 100 LF of silt fence per ¼ acre of drainage area (maximum drainage area slope of 10%). Only silt fence parallel to the contours should be used in the calculation.		

#	TOTAL PROPOSED PERVIOUS/IMPERVIOUS SURFACE AREA:	INCLUDED?	N/A
79	Provide a chart including the total proposed pervious/impervious surface area for the final phase of the project. The chart shall include the total surface area of the parcel in square feet with square footage totals for impervious and pervious area.		

Note: All projects are to provide, at a minimum, the items specified in this EPSC Plan Review Checklist and must meet or exceed the requirements of the TDEC EPSC Handbook. Check the City of Hendersonville Stormwater website for the most recent Plan Review Checklist.

Land Disturbance Permitting Process



problems resulting from existing characteristics.

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

(j) Proposed drainage network.

(k) Proposed drain tile or waterway sizes.

(l) 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.

(m) 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 including the construction of any sediment basins or retention facilities or any other structural BMPs.

(n) 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.

(o) Specific details for: the construction of rock pads, wash down pads, and settling 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 workday by machine, broom or shovel to the satisfaction of the City Engineer. Failure to remove the sediment, soil or debris shall be deemed a violation of this ordinance.

(p) Proposed structures; location (to the extent possible) and identification of any proposed additional buildings, structures or development on the site.

(q) A description of on-site measures to be taken to recharge surface water into the ground water system through infiltration.

18-205. Water Quality Riparian Buffers.

(l) Scope. A water quality riparian buffer shall be established, protected, and maintained along all community waters in areas of New Development for which a land disturbance permit and

Construction General Permit coverage is required. The goal of the water quality riparian buffer is to preserve undisturbed vegetation that is native to the streamside habitat in the area of the project. Vegetated, preferably native, water quality riparian buffers protect water bodies by providing structural integrity and canopy cover, as well as stormwater infiltration, filtration and evapotranspiration. The buffer requirement may be fulfilled with a combination of an inner and an outer zone. The predominant vegetation in the inner zone of the buffer (adjacent to the community water) should be trees. The outer zone (adjacent to the development) of 60-foot riparian buffers may be composed of herbaceous cover or infiltration-based SCMs. The outer zone allows for more flexibility in the type of vegetation and placement of SCMs.

Water Quality Riparian Buffer Requirements for Sites That Require CGP Coverage		
Community water characteristics	**Permanent buffer**	**During construction (temporary) buffer**
Community water drainage area < 1 square mile and not designated as impaired or an Exceptional Tennessee Water (ETW)	30-feet (No averaging)	30-feet (Can be established on an average basis as long as minimum is 15-feet. City-approved buffer enhancement plan required for CGP-allowable, temporary buffer encroachment.)
Community water drainage area < 1 square mile and designated as impaired or an Exceptional Tennessee Water (ETW)	30-feet (No averaging)	60-feet (can be established on an average basis as long as minimum is 30-feet)
Community water drainage area > 1 square mile and not designated as impaired or an Exceptional Tennessee Water (ETW)	60-feet (Can be established on an average basis as long as minimum is 30-feet.)	30-feet (Can be established on an average basis as long as minimum is 15-feet. City-approved buffer enhancement plan required for CGP-allowable, temporary buffer encroachment.)
Community water drainage area > 1 square mile and designated as impaired or an Exceptional Tennessee Water (ETW)	60-feet (Can be established on an average basis as long as minimum is 30-feet)	60-feet (Can be established on an average basis as long as minimum is 30-feet)
Notes: 1) "Impaired" refers to community water that have unavailable parameters for siltation and habitat alteration. 2) If a New Development project encompasses both sides of a community water, buffer averaging can be applied to both sides, but must be applied independently.		

(a) The buffer width shall be measured perpendicular from the top of bank on each side of the community water channel; around the perimeter of a pond or lake identified as a community water measured as perpendicular to the contour at which normal pool is located around; and around the perimeter of a wetland identified as a community water.

(b) The water quality riparian buffer is to remain undisturbed except for the following disturbances which are allowed subject to approval by the Director of Public Works

including the approval of an erosion prevention and sediment control plan:

(i) Limited disturbances to remove and/or plant trees or vegetation, as required to maintain the overall health of vegetation in the buffer area. This includes the removal of invasive exotic plants and the establishment of native vegetation, and/or other practices to restore the ecological integrity of the buffer. Removal of individual trees that are in danger of falling, causing damage to dwellings or other structures, are dead or diseased, or have been heavily damaged by storms. The root wad or stump should be left in place, where feasible, to maintain soil stability. The Public Works Director may require a Buffer Enhancement Plan prior to buffer disturbance.

(ii) Disturbances necessary for the construction of utility access areas and approved stream crossings as long as the crossings are perpendicular or as near to perpendicular as possible to the channel.

(iii) Disturbances as required to establish and/or restore buffer areas in accordance with an approved Buffer Enhancement Plan that demonstrates the pollutant removal function of the buffer is retained or improved.

(iv) Passive recreation, pervious footpaths, biking or hiking paths, greenways, and boardwalks to approach the water resource as approved by the Director of Public Works. View corridors shall be allowed along greenways as approved by the Director of Public Works. Paths and greenways shall be designed to prevent the channelization of stormwater runoff, and should be constructed of pervious materials If trails are constructed from impervious materials, runoff must either be directed to infiltration-based SCMs or the buffer width must be increased by the width of the trail. Trails constructed within the buffer must prevent or minimize the generation of pollutants.

(v) Stormwater channels as approved by the Director of Public Works and subject to State and Federal permitting requirements.

(vi) Cut and fill for floodplain compensations as approved by the Director of Public Works and in compliance with Ordinance 2017-16 regarding flooding.

(c) 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. A determination that water quality riparian 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.

(d) Any approved disturbance of the water quality riparian buffer shall be revegetated in kind and/or enhanced. The vegetative target for the inner zone is mature, moderately dense forest (i.e., trees) with woody shrubs and understory vegetation. Where forest vegetation has the potential to impact traffic safety or limit access, areas immediately surrounding approved stream crossings and utility access areas may be vegetated with dense grasses.

(e) For any proposed development and/or construction activity within or adjacent to a water quality riparian buffer, the following shall be required.

(i) The parameters of the water quality riparian buffer shall be delineated by the applicant and boundaries shall be clearly indicated and labeled on all plats, plans, permits and official maps.

(ii) Include a note on plans to reference protective covenants governing all water quality riparian buffer areas, labeled as: "Any water quality riparian buffer is subject to protective covenants recorded in the Register of Deeds (Sumner County). Disturbance and use of these areas is restricted; severe penalties apply."

(iii) Water Quality riparian buffers shall be protected during construction activities by a combination of fencing and flagging to prevent entry of construction equipment, storage and stockpiling. Buffer boundaries shall be marked during construction activities.

18-207. Post Construction 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 detailed inspection report by the engineer of record is required before any performance security will be released. The City Engineer shall have the discretion to adopt provisions for a partial pro-rata release of the performance security on the completion of various stages of development. In addition, occupation permits shall not be granted until corrections to all BMPs have been made and accepted by the City Engineer.

(2). Land Cover and stabilization requirements.

(a) Any area of land from which the natural vegetative cover has been