

**Millersville Board of Commissioners
Work Session Agenda**

**Monday, November 6, 2023 at 6:00 P.M.
at Millersville City Hall**

1. Call to Order.
2. Invocation and Pledge of Allegiance.
3. City Department Updates:
 - a. Building Department
 - b. Planning Department
 - c. Parks Department
 - d. Fire Department
 - e. Police Department
 - f. Public Works Department
4. Discussion on the Police Chief position.
5. Discussion on Christmas Party.
6. **Ordinance 23-799** An ordinance Amending Ordinance 23-794 The 2023-2024 Fiscal Year Budget, to Reflect the Actual Revenue and Expenses in Multiple Line Items Amendment #1.
7. **Ordinance 23-804** An ordinance Amending Chapter 19 Stormwater Management, by Adopting the Changes in Attachment A to Comply With TDEC Requirements.
8. Citizen Comments
9. City Attorney Comments.
10. City Manager Comments.
11. Commissioner Comments
12. Adjournment.



Millersville Fire Department

1246 Louisville Highway
Millersville, TN 37072



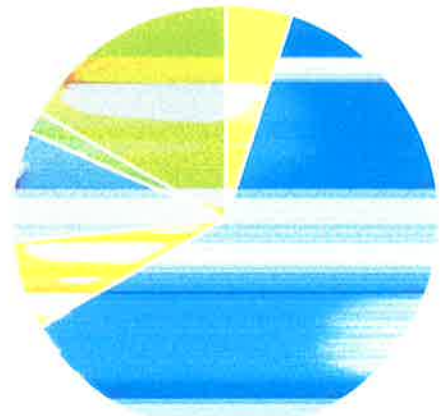
Fire - Incident Types with Monthly Breakdown October 2025

Year to Date Calls: 718

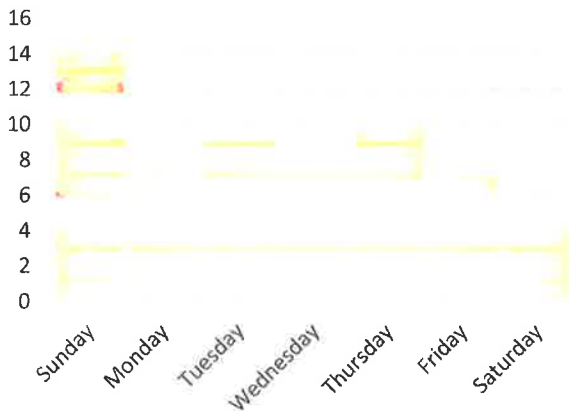
Previous Year to Date: 696

Incident Type Group	Number of Calls
100 - Fire	3
300 - EMS /Crashes	37
400 - HAZMAT	0
500 - Service Call	4
600 - Good Intent	5
700 - False Alarm	1
800 - Natural Disaster	0
Null- No Response	10
Total Calls:	60

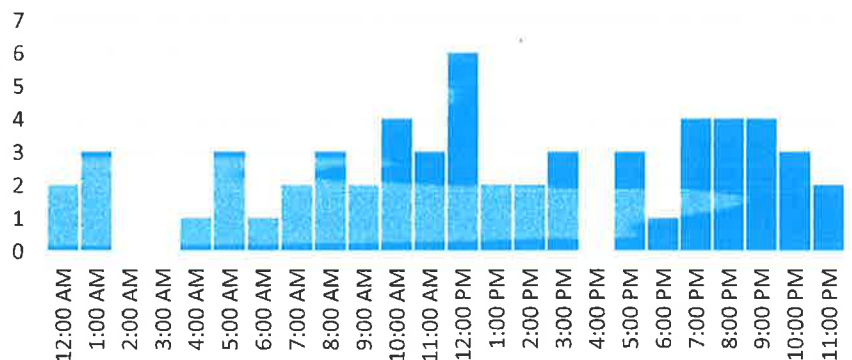
- 100 - Fire
- 300 - EMS /Crashes
- 400 - HAZMAT
- 500 - Service Call
- 600 - Good Intent
- 700 - False Alarm
- 800 - Natural Disaster
- Null- No Response



Calls for service by days of the week.



Calls for service by time of day.

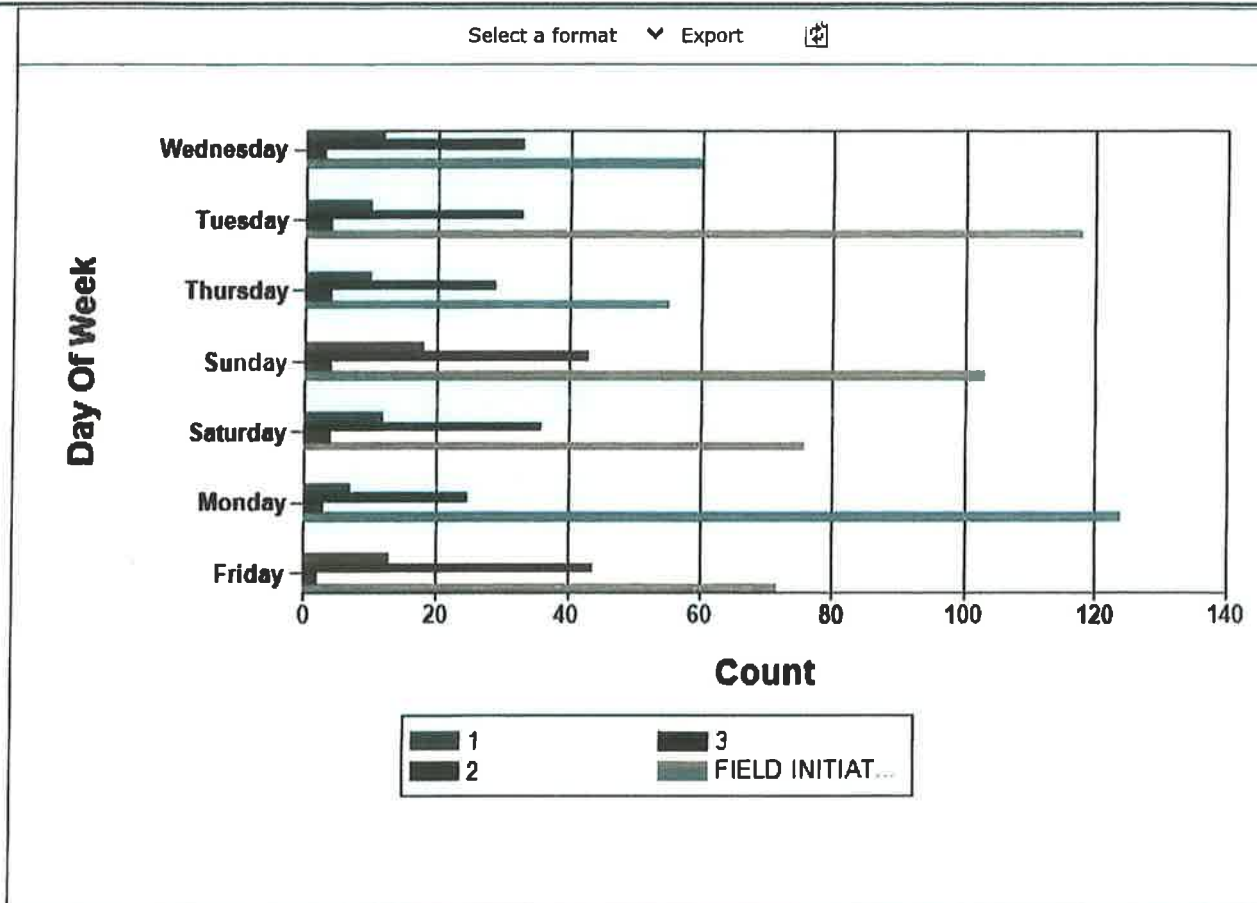


Day Of Week Call Volume Summary

9:48 AM 11/1/2023

Data Source: Data Warehouse

Agency:	Law
Division:	MILLERSVILLE PD
Day Range:	Date From 10/1/2023 To 10/31/2023
Day of Week:	Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday
Exclusion:	None



Priority	Description
1	1
2	2
3	3
4	FIELD INITIATED
99	SCHOOL LOCKDOWN

Day of Week	1	2	3	4	99	Total
Monday	18	43	4	103	0	168
Tuesday	7	25	3	124	0	159
Wednesday	10	33	4	118	0	165
Thursday	12	33	3	60	0	108
Friday	10	29	4	55	0	98
Saturday	13	44	2	72	0	131
Total	82	243	24	608	0	957

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Close

Group A Offenses - YTD Annual Comparisons

Current date: 11/1/2023 9:51:55 AM (Central Daylight Time)

Measures: Number of Crimes

Jurisdiction by Geography: Millersville Police Department

Incident Date	Oct 2023 YTD	Oct 2022 YTD	Oct 2022 YTD - Oct 2023 YTD Growth %
Offense Type			
All Offense Types	154	206	-25.24
Murder			
Negligent Manslaughter			
Justifiable Homicide			
Negligent Vehicular Manslaughter			
Kidnapping/Abduction			
Forcible Rape	3	2	50.00
Forcible Sodomy			
Sexual Assault W/Object			
Forcible Fondling	2	1	100.00
Incest			
Statutory Rape		1	-100.00
Aggravated Assault	12	11	9.09
Simple Assault	30	46	-34.78
Intimidation	3		
Stalking		1	-100.00
Commercial Sex Acts			
Involuntary Servitude			
Arson		1	-100.00
Bribery			
Burglary	5	2	150.00
Counterfeiting/Forgery	5	1	400.00
Destruction/Damage/Vandalism	6	17	-64.71
Embezzlement			
Extortion/Blackmail		1	-100.00
Fraud - False Pretenses	4	1	300.00
Fraud - Credit Card/ATM	4	2	100.00
Fraud - Impersonation	5	3	66.67
Fraud - Welfare			
Fraud - Wire		1	-100.00
Fraud - Identity Theft			
Fraud - Computer Hacking/Invasion			
Robbery			
Theft - Pocket-picking			
Theft - Purse Snatching		1	-100.00
Theft - Shoplifting	2	1	100.00
Theft From Building	2	2	0.00
Theft From Coin Machine			
Theft From Motor Vehicle	1	6	-83.33
Theft of Motor Vehicle Parts	1	4	-75.00

Group A Offenses - YTD Annual Comparisons

Current date: 11/1/2023 9:51:55 AM (Central Daylight Time)

Measures: Number of Crimes

Jurisdiction by Geography: Millersville Police Department

Incident Date	Oct 2023 YTD	Oct 2022 YTD	Oct 2022 YTD - Oct 2023 YTD Growth %
Offense Type			
Theft - All Other Larceny	9	9	0.00
Motor Vehicle Theft	1	3	-66.67
Stolen Property Offenses		1	-100.00
Animal Cruelty			
Drug/Narcotic Violations	37	62	-40.32
Drug/Narcotic Equipment Violations	21	20	5.00
Gambling - Betting/Wagering			
Gambling - Operating/Promoting			
Gambling - Equipment Violations			
Gambling - Sports Tampering			

Group B Arrests - YTD Annual Comparisons

Current date: 11/1/2023 9:52:56 AM (Central Daylight Time)

Measures: Number of Arrestees

Jurisdiction by Geography: Millersville Police Department

Arrest Date	Oct 2023 YTD	Oct 2022 YTD	Oct 2022 YTD - Oct 2023 YTD Growth %
Offense Type			
Group B Offenses	48	42	14.29
Bad Checks			
Curfew/Vagrancy			
Disorderly Conduct			
DUI	43	24	79.17
Drunkenness	1	3	-66.67
Family-Non Violent			
Liquor Law Violations			
Peeping Tom			
Runaway			
Trespass	1	2	-50.00
902: All Other Offenses	3	13	-76.92

Group B Arrests - YTD Annual Comparisons

Current date: 11/1/2023 9:52:56 AM (Central Daylight Time)

Measures: Number of Arrestees

Jurisdiction by Geography: Millersville Police Department

Arrest Date	Oct 2023 YTD	Oct 2022 YTD	Oct 2022 YTD - Oct 2023 YTD Growth %
Offense Type			
Group B Offenses	48	42	14.29
Bad Checks			
Curfew/Vagrancy			
Disorderly Conduct			
DUI	43	24	79.17
Drunkenness	1	3	-66.67
Family-Non Violent			
Liquor Law Violations			
Peeping Tom			
Runaway			
Trespass	1	2	-50.00
90Z: All Other Offenses	3	13	-76.92

Millersville Police Department (TN0830600) - Monthly NIBRS Submissions - 2023

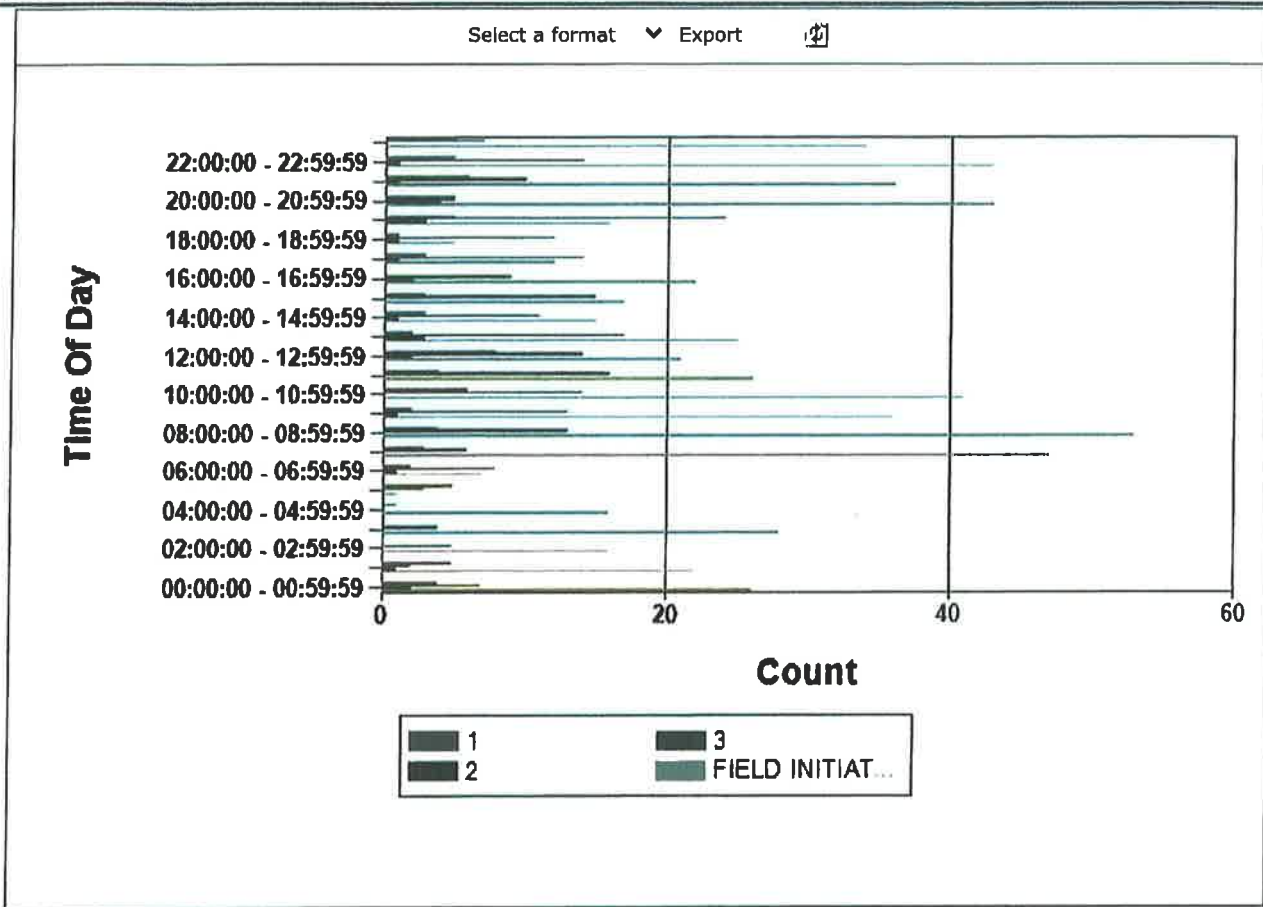
Month	Number of Incidents	Number of Arrests	Number of Recovered Properties	Number of Exceptionally Cleared Incidents	Zero Report
January	13	14	0	0	×
February	13	7	1	0	×
March	14	14	0	0	×
April	17	13	0	0	×
May	16	7	1	0	×
June	18	15	0	0	×
July	14	14	0	1	×
August	12	14	1	1	×
September	4	6	0	0	×
October	0	0	0	0	×

Time of Day Call Volume Summary

9:50 AM 11/1/2023

Data Source: Data Warehouse

Agency:	Law
Division:	MILLERSVILLE PD
Day Range:	Date From 10/1/2023 To 10/31/2023
Time of Day:	00:00:00 - 00:59:59, 01:00:00 - 01:59:59, 02:00:00 - 02:59:59, 03:00:00 - 03:59:59, 04:00:00 - 04:59:59, 05:00:00 - 05:59:59, 06:00:00 - 06:59:59, 07:00:00 - 07:59:59, 08:00:00 - 08:59:59, 09:00:00 - 09:59:59, 10:00:00 - 10:59:59, 11:00:00 - 11:59:59, 12:00:00 - 12:59:59, 13:00:00 - 13:59:59, 14:00:00 - 14:59:59, 15:00:00 - 15:59:59, 16:00:00 - 16:59:59, 17:00:00 - 17:59:59, 18:00:00 - 18:59:59, 19:00:00 - 19:59:59, 20:00:00 - 20:59:59, 21:00:00 - 21:59:59, 22:00:00 - 22:59:59, 23:00:00 - 23:59:59
Exclusion:	None



Priority	Description
1	1
2	2
3	3
4	FIELD INITIATED
99	SCHOOL LOCKDOWN

Time Of Day	1	2	3	4	99	Total
00:00:00 - 00:59:59	4	7	2	26	0	39
01:00:00 - 01:59:59	5	2	1	22	0	30
02:00:00 - 02:59:59	0	5	0	16	0	21
03:00:00 - 03:59:59	0	4	0	28	0	32
04:00:00 - 04:59:59	1	0	0	16	0	17
05:00:00 - 05:59:59	5	3	0	1	0	9
06:00:00 - 06:59:59	2	8	1	7	0	18
07:00:00 - 07:59:59	3	6	0	47	0	56
08:00:00 - 08:59:59	4	13	0	53	0	70
09:00:00 - 09:59:59	2	13	1	36	0	52

11/1/23, 9:50 AM

Inform Browser : 21.102.75.2 - Time of Day Call Volume Summary

10:00:00 - 10:59:59
 11:00:00 - 11:59:59
 12:00:00 - 12:59:59
 13:00:00 - 13:59:59
 14:00:00 - 14:59:59
 15:00:00 - 15:59:59
 16:00:00 - 16:59:59
 17:00:00 - 17:59:59
 18:00:00 - 18:59:59
 19:00:00 - 19:59:59
 20:00:00 - 20:59:59
 21:00:00 - 21:59:59
 22:00:00 - 22:59:59
 23:00:00 - 23:59:59
 Total

6	14	0	41	0	61
4	16	0	26	0	46
8	14	2	21	0	45
2	17	3	25	0	47
3	11	1	15	0	30
3	15	0	17	0	35
0	9	2	22	0	33
3	14	1	12	0	30
1	12	1	5	0	19
5	24	3	16	0	48
5	5	4	43	0	57
6	10	1	36	0	53
5	14	1	43	0	63
5	7	0	34	0	46
82	243	24	608	0	957

Go Back

Close

Time of Day Call Volume Summary

9:50 AM 11/1/2023

Data Source: Data Warehouse

Agency: Law

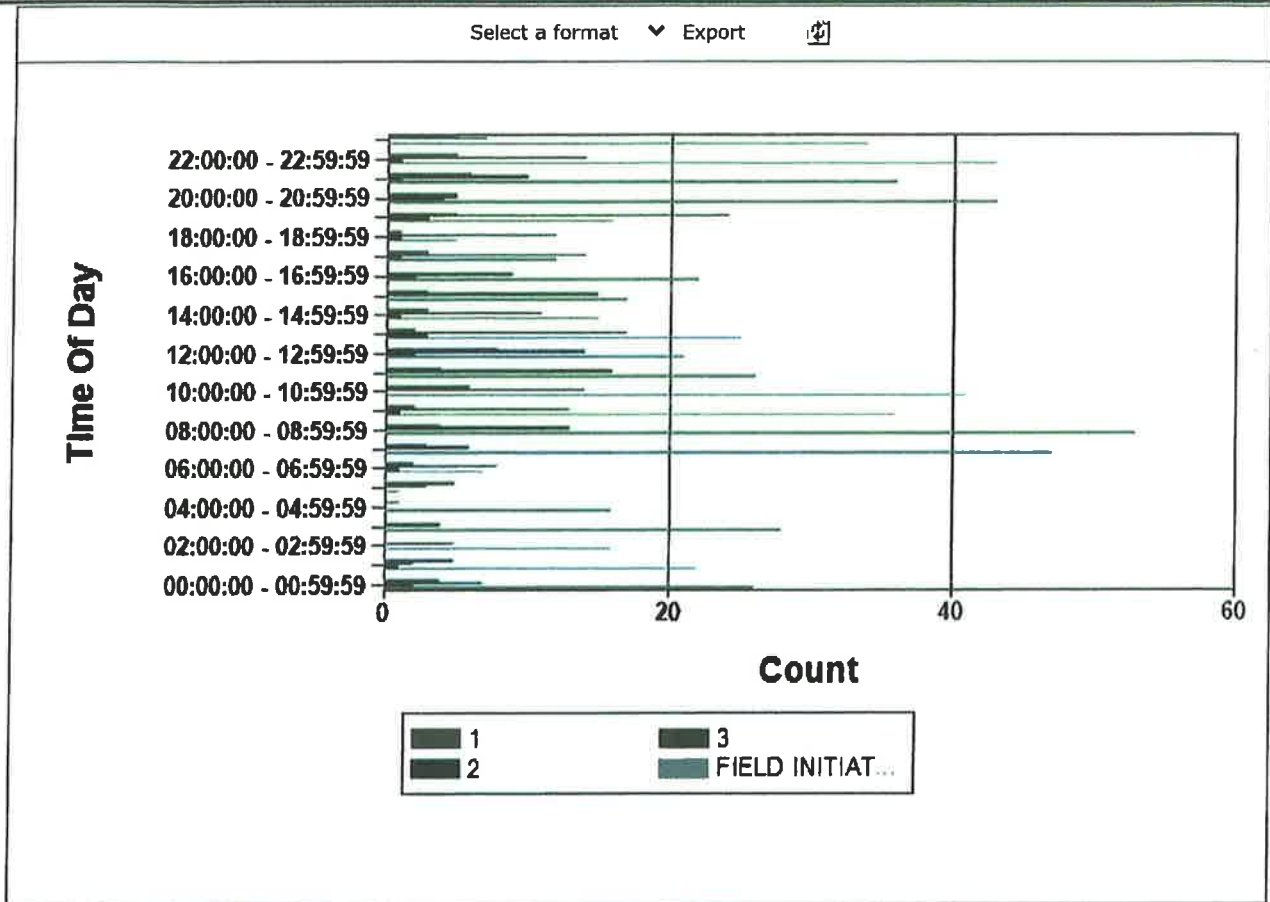
Division: MILLERSVILLE PD

Day Range: Date From 10/1/2023 To 10/31/2023

Time of Day:

00:00:00 - 00:59:59, 01:00:00 - 01:59:59, 02:00:00 - 02:59:59, 03:00:00 - 03:59:59, 04:00:00 - 04:59:59,
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Exclusion: None



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01:00:00 - 01:59:59	5	2	1	22	0	30
02:00:00 - 02:59:59	0	5	0	16	0	21
03:00:00 - 03:59:59	0	4	0	28	0	32
04:00:00 - 04:59:59	1	0	0	16	0	17
05:00:00 - 05:59:59	5	3	0	1	0	9
06:00:00 - 06:59:59	2	8	1	7	0	18
07:00:00 - 07:59:59	3	6	0	47	0	56
08:00:00 - 08:59:59	4	13	0	53	0	70
09:00:00 - 09:59:59	2	13	1	36	0	52

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Total

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8	14	2	21	0	45
2	17	3	25	0	47
3	11	1	15	0	30
3	15	0	17	0	35
0	9	2	22	0	33
3	14	1	12	0	30
1	12	1	5	0	19
5	24	3	16	0	48
5	5	4	43	0	57
6	10	1	36	0	53
5	14	1	43	0	63
5	7	0	34	0	46
82	243	24	608	0	957

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ORDINANCE 23-794**Amd#1
Ord 23-799****AN ORDINANCE OF THE CITY OF MILLERSVILLE, TENNESSEE,
ADOPTING THE ANNUAL BUDGET AND TAX RATE FOR THE FISCAL YEAR BEGINNING
JULY 1, 2023 THROUGH JUNE 30, 2024**

Whereas, *Tennessee Code Annotated* Title 9 Chapter 1 Section 116 requires that all funds of the State of Tennessee and all its political subdivisions shall first be appropriated before being expended and that only funds that are available shall be appropriated; and

Whereas, the Municipal Budget Law of 1982 requires that the governing body of each municipality adopt and operate under an annual budget ordinance presenting a financial plan with at least the information required by that state statute, that no municipality may expend any moneys regardless of the source except in accordance with a budget ordinance and that the governing body shall not make any appropriation in excess of estimated available funds; and

Whereas, the governing body has published the annual operating budget and budgetary comparisons of the proposed budget with the prior year (actual) and the current year (estimated) in a newspaper of general circulation not less than ten (10) days prior to the meeting where the governing body will consider final passage of the budget.

NOW THEREFORE BE IT ORDAINED BY THE CITY OF MILLERSVILLE, TENNESSEE AS FOLLOWS:

SECTION 1: That the governing body estimates anticipated revenues of the municipality from all sources to be as follows:

General Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed
Local Taxes	\$ 2,225,940	\$ 2,292,683	\$ 2,390,639
Licenses & Permits	\$ 128,880	\$ 101,225	\$ 240,400
Intergovernmental Revenue	\$ 828,674	\$ 855,636	\$ 858,462
Charges for Services	\$ 42,010	\$ 52,025	\$ 50,025
Fines and Forfeitures	\$ 285,920	\$ 350,900	\$ 360,000
Contributions & Grants	\$ 1,069,157	\$ 1,009,227	\$ 140,993
Miscellaneous Revenue	\$ 559,759	\$ 54,290	\$ 26,300
Other Financing Sources	\$ 2,845,640	\$ 158,000	\$ 158,000
Total Revenue	\$ 7,985,980	\$ 4,873,986	\$ 4,224,819
Fund Balance	\$ 2,533,415	\$2,613,767	\$ 2,198,867
Total Available Funds	\$10,519,395	\$7,487,753	\$6,423,686

State Street Aid Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed
State Gas Tax Revenue	\$ 221,150	\$ 220,000	\$ 220,000
Miscellaneous Revenue	\$ 8,241	\$ 39,150	\$ 11,000
Transfer from General Fund	\$ 3,197,586	\$ 550,000	\$ -
Total Revenue	\$ 3,426,977	\$ 809,150	\$ 231,000
Fund Balance	\$ 211,885	\$ 2,974,819	\$ 3,104,749
Total Available Funds	\$ 3,638,862	\$ 3,783,969	\$ 3,335,749

Drug Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed
Drug Fines & Revenue	\$ 25,880	\$ 29,525	\$ 5,020
Total Revenue	\$ 25,880	\$ 29,525	\$ 5,020
Fund Balance	\$ 27,000	\$ 32,425	\$ 28,634
Total Available Funds	\$ 52,880	\$ 61,950	\$ 33,654

Solid Waste Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed
Service Fees	\$ 509,782	\$ 536,100	\$ 551,500
Miscellaneous Revenue	\$ 3,770	\$ 4,250	\$ 4,250
Total Revenue	\$ 513,552	\$ 540,350	\$ 555,750
Fund Balance	\$ 429,678	\$ 423,175	\$ 470,766
Total Available Funds	\$ 943,230	\$ 963,525	\$ 1,026,516

Stormwater Utility Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed
Stormwater Utility Fees	\$ 154,795	\$ 159,540	\$ 159,000
Miscellaneous Revenue	\$ 925,845	\$ 280,944	\$ 259,890
Total Revenue	\$ 1,080,640	\$ 440,484	\$ 418,890
Fund Balance	\$ 194,125	\$ 302,552	\$ 533,610
Total Available Funds	\$ 1,274,765	\$ 743,036	\$ 952,500

Sewer Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed
Sewer User Fees	\$ 1,382,332	\$ 1,430,000	\$ 1,480,000
Sewer Tap Fees	\$ 48,550	\$ 44,200	\$ 60,000
Other Fees	\$ 46,616	\$ 42,500	\$ 46,000
Non-Operating Revenue	\$ 1,613	\$ 1,180	\$ 2,000
Other Revenue Sources	\$ 7,537	\$ 160,463	\$ 588,900
Total Revenue	\$ 1,486,648	\$ 1,678,343	\$ 2,176,900

SECTION 2: That the governing body appropriates from these anticipated revenues and unexpended and unencumbered funds as follows:

General Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed	Amd#1 Ord 23-799
General Government (inc Dev&Codes)	\$ 1,397,482	\$ 1,468,203	\$ 1,260,301	+42,100=\$1,302,401 +19,837=\$2,216,637
Police Department (& City Court)	\$ 1,533,594	\$ 1,946,571	\$ 2,196,800	
Fire Department	\$ 379,842	\$ 291,622	\$ 446,145	
Parks and Recreation	\$ 101,860	\$ 167,111	\$ 128,480	
Debt Service	\$ 380,037	\$ 426,152	\$ 470,181	
Transfer to Street	\$ 3,197,586	\$ 550,000	\$ -	
Transfer to Sewer	\$ -	\$ 160,453	\$ -	
Transfer to Stormwater	\$ 915,227	\$ 278,774	\$ -	
Capital	\$ -	\$ -	\$ -	
Total Appropriations	\$ 7,905,628	\$ 5,288,886	\$ 4,501,907	

State Street Aid Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed
Street Expenditures	\$ 90,880	\$ 92,642	\$ 238,700
Capital	\$ 573,163	\$ 586,578	\$ 2,940,342
Total Appropriations	\$ 664,043	\$ 679,220	\$ 3,179,042

Drug Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed
Police Dept Drug Expenditures	\$ 20,455	\$ 33,316	\$ 33,654
Total Appropriations	\$ 20,455	\$ 33,316	\$ 33,654

Solid Waste Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed	Amd#1 Ord 23-799
Operating Expenditures	\$ 461,587	\$ 492,759	\$ 507,722	+2,500=\$510,222
Capital	\$ 58,468	\$ -	\$ -	
Total Appropriations	\$ 520,055	\$ 492,759	\$ 507,722	+2,500=\$510,222

Stormwater Utility Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed	Amd#1 Ord 23-799
Operating Expenses	\$ 92,789	\$ 71,926	\$ 105,406	+1,500=\$106,906
Capital	\$ 879,424	\$ 137,500	\$ 643,215	
Total Appropriations	\$ 972,213	\$ 209,426	\$ 748,621	+1,500=\$750,121

Sewer Fund	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Proposed	Amd#1 Ord 23-799
Operating Expenses	\$ 1,191,927	\$ 1,158,613	\$ 1,329,362	+2,500=\$1,331,862
Non-Operating Expenses	\$ -	\$ -	\$ -	
Debt Service	\$ 1,452	\$ 22,608	\$ 22,596	
Capital	\$ 159,230	\$ 343,111	\$ 1,353,453	
Total Appropriations	\$ 1,352,609	\$ 1,524,332	\$ 2,705,411	+2,500=\$2,707,911

SECTION 3. At the end of the 2023 fiscal year, the governing body estimates fund balances/deficits as follows:

		Amd#1 Ord 23-799
General Fund	\$ 1,921,779	-61,937=\$1,859,842
State Street Aid Fund	\$ 156,707	
Drug Fund	\$ -	
Solid Waste Fund	\$ 518,794	-2,500=\$516,294
Stormwater Fund	\$ 203,879	-1,500=\$202,379
Sewer Fund	\$ -	n/a

SECTION 4. That the governing body recognizes that the municipality has bonded and other indebtedness as follows:

Bonded or Other Indebtedness	Principal (current yr)	Interest (current yr)	Principal outstanding @ 6/30/24
Bonds	\$ 275,000	\$ 138,288	\$ 4,720,000
State Revolving Loan	\$ 21,300	\$ 1,296	\$ 368,483
Loan Agreements	\$ 39,505	\$ 4,888	\$ 209,239
Capital Leases	\$ -	\$ -	\$ -
Other Debt	\$ -	\$ -	\$ -
Total	\$ 335,805	\$ 144,472	\$ 5,297,722

SECTION 5. No appropriation listed above may be exceeded without an amendment of the budget ordinance as required by the Municipal Budget Law of 1982 T.C.A. Section 6-56-208. In addition, no appropriation may be made in excess of available funds except to provide for an actual emergency threatening the health, property or lives of the inhabitants of the municipality and declared by a two-thirds (2/3) vote of at least a quorum of the governing body in accordance with Section 6-56-205 of the *Tennessee Code Annotated*.

SECTION 6. Money may be transferred from one appropriation to another in the same fund only by appropriate ordinance by the governing body, subject to such limitations and procedures as it may describe as allowed by Section 6-56-209 of the *Tennessee Code Annotated*. Any resulting transfers shall be reported to the governing body at its next regular meeting and entered into the minutes.

SECTION 7. A detailed financial plan will be attached to this budget and become part of this budget ordinance.

SECTION 8. If for any reason a budget ordinance is not adopted prior to the beginning of the next fiscal year, the appropriations in this budget ordinance shall become the appropriations for the next fiscal until the adoption of the new budget ordinance in accordance with Section 6-56-210 of the *Tennessee Code Annotated*, provided sufficient revenues are being collected to support the continuing appropriations. Approval of the Director of the Division of Local Finance for a continuation budget will be requested if any indebtedness is outstanding.

SECTION 9. There is hereby levied a property tax of \$0.85 per \$100 of assessed value on all real and personal property in Robertson County.

There is hereby levied a property tax of \$1.00 per \$100 of assessed value on all real and personal property in Sumner County.

SECTION 10. All unencumbered balances of appropriations remaining at the end of the fiscal year shall lapse and revert to the respective fund balances.

SECTION 11. This ordinance shall take effect on July 1, 2023, the public welfare requiring it.

Passed First Reading: May 16, 2023

Public Hearing: June 20, 2023

Passed Second and Final Reading: June 20, 2023

BOARD OF COMMISSIONERS

Tommy Long
Mayor

Attest:

Holly L. Murphy
Holly L. Murphy, City Recorder

Approved as to Form and Legality:

J.B. Freedle
J.B. Freedle, City Attorney

**CITY OF MILLERSVILLE, TENNESSEE
ORDINANCE 23-799**

**AN ORDINANCE TO AMEND ORDINANCE 23-794, THE 2023-2024 FISCAL
YEAR BUDGET, TO REFLECT THE ACTUAL REVENUE AND EXPENSES IN
MULTIPLE LINE ITEMS.**

WHEREAS, the City of Millersville adopted the 2023-2024 Fiscal Year Budget by passage of Ordinance 22-794 on June 20, 2023; and

WHEREAS, the City has since identified expenditures that were not included as part of the original budget related to increased audit fees and liability insurance; the continuation of the Fire Department remodel at City Hall, and to purchase additional equipment in the Street Fund.

WHEREAS, the Governing Body finds it necessary to amend the Budget to reflect the actual expenses as outlined below.

WHEREAS, a budget amendment is necessary to the Appropriation Ordinance in order to reflect the actual finances of the City; and

WHEREAS, Tennessee Code Annotated Title 6, Chapter 56, Section 208 allows the governing body to amend the annual budget ordinance in the same manner as any other ordinance may be amended.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COMMISSIONERS OF THE CITY OF MILLERSVILLE, TENNESSEE that Ordinance 22-794, the 2023-2024 Fiscal Year Budget, shall be amended as follows:

General Fund -

**SECTION 2 – GENERAL FUND:
APPROPRIATIONS:**

Appropriations proposed in the General Government (inc. Dev & Codes) will increase by \$42,100 and change from \$1,260,301 to \$1,302,401.

Appropriations proposed in the Police Department (inc. City Court) will increase by \$19,837 and change from \$2,196,800 to \$2,216,637.

The Total Appropriations in the General Fund will change from \$4,501,907 to \$4,563,844.

SECTION 3 – ESTIMATED FUND BALANCE: The Estimated Fund Balance for the General Fund will decrease by \$61,937 and change from \$1,921,779 to \$1,859,842.

Solid Waste Fund

**SECTION 2 – SOLID WASTE FUND:
APPROPRIATIONS:**

Appropriations proposed for operating expenses in the Solid Waste Fund will increase by \$2,500 and change from \$507,722 to \$510,222.

The Total Appropriations in the Solid Waste Fund will change from \$507,722 to \$510,222.

SECTION 3 – ESTIMATED FUND BALANCE: The Estimated Fund Balance for the Solid Waste Fund will decrease by \$2,500 and change from \$518,794 to \$516,294.

Stormwater Fund

SECTION 2 – STORMWATER UTILITY FUND:
APPROPRIATIONS:

Appropriations proposed for operating expenses in the Stormwater Utility Fund will increase by \$1,500 and change from \$105,406 to \$106,906.

The Total Appropriations in the Stormwater Utility Fund will change from \$748,621 to \$750,121.

SECTION 3 – ESTIMATED FUND BALANCE: The Estimated Fund Balance for the Stormwater Fund will decrease by \$1,500 and change from \$203,879 to \$202,379.

Sewer Fund

SECTION 2 – SEWER FUND:
APPROPRIATIONS:

Appropriations proposed for operating expenses in the Sewer Fund will increase by \$2,500 and change from \$1,329,362 to \$1,331,862.

The Total Appropriations in the Sewer Fund will change from \$2,705,411 to \$2,707,911.

SECTION 3 – ESTIMATED FUND BALANCE: Not applicable.

THIS ORDINANCE SHALL BECOME EFFECTIVE IMMEDIATELY UPON PASSAGE, THE PUBLIC WELFARE REQUIRING IT.

Passed First Reading: _____

Public Hearing: _____

Passed Second Reading: _____

BOARD OF COMMISSIONERS

By: _____

Mayor

Attest:

Approved as to Form and Legality:

By: _____
Holly Murphy, City Recorder

By: _____
Jack Freedle, City Attorney

CITY OF MILLERSVILLE, TENNESSEE

ORDINANCE 23-804

**AN ORDINANCE TO AMEND CHAPTER 19 STORMWATER
MANAGEMENT AS OUTLINED IN ATTACHMENT A.**

WHEREAS, the Governing Body of the City of Millersville reviews its Code of Ordinances from time to time to ensure that the laws of the city meet the requirements of the local, state and federal laws and the desires of the City Commission; and

WHEREAS, the Governing Body has identified errors in Chapter 19 Stormwater Management; and

NOW THEREFORE, BE IT ORDAINED by the Board of Commissioners of the City of Millersville, Tennessee, Chapter 19 – Stormwater Management be amended as outlined in Attachment A.

**THIS ORDINANCE SHALL BE EFFECTIVE FROM AND AFTER ITS PASSAGE,
THE PUBLIC WELFARE REQUIRING IT.**

Passed First Reading: _____

Public Hearing: _____

Passed Second Reading: _____

BOARD OF COMMISSIONERS

By: _____

Tommy Long, Mayor

Attest:

By: _____

Holly L. Murphy, City Recorder

Approved as to Form and Legality:

By: _____

Jack Freedle, City Attorney

Attachment A

Chapter 19 STORMWATER MANAGEMENT

ARTICLE I. IN GENERAL

Secs. 19-1—19-100. Reserved.

Sec. 19-101. General provisions.

- (1) *Purpose.* It is the purpose of this chapter to:
 - (a) Protect, maintain, and enhance the environment of the city and the public health, safety and the general welfare of the citizens of the city, by controlling discharges of pollutants to the city's stormwater system.
 - (b) Enable the city to comply with the National Pollution Discharge Elimination System permit (NPDES) general permit for discharges from small Municipal Separate Storm Sewer Systems (MS4) and applicable regulations, 40 CFR 122.26 for stormwater discharges;
 - (c) Allow the city to exercise the powers granted in T.C.A., § 68-221-1105, which provides that, among other powers cities have with respect to stormwater facilities, is the power by ordinance or resolution to:
 - (i) Exercise general regulation over the planning, location, construction, and operation and maintenance of stormwater facilities in the city, whether or not owned and operated by the city;
 - (ii) Adopt any rules and regulations deemed necessary to accomplish the purposes of this statute, including the adoption of a system of fees for services and permits;
 - (iii) Establish standards to regulate the quantity of stormwater discharged and to regulate stormwater contaminants as may be necessary to protect water quality;
 - (iv) Review and approve plans and plats for stormwater management in proposed subdivisions or commercial developments;
 - (v) Issue permits for stormwater discharges, or for the construction, alteration, extension, or repair of stormwater facilities;
 - (vi) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit;
 - (vii) Regulate and prohibit discharges into stormwater facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and
 - (viii) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of stormwater contamination, whether public or private.
- (2) *Administrator.* The city manager, or designee, shall administer the provisions of this chapter.

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- (3) *Jurisdiction.* This article shall govern all properties within the corporate limits for the City of Millersville, Tennessee.
 - (4) *Right of entry.* Designated city staff shall have right-of-entry, at reasonable times, on or upon the property of any person subject to this chapter and access to any permit/document issued hereunder. City staff shall be provided ready access to all parts of the premises for purposes of inspection, monitoring, sampling, inventory, records examination and copying, and performance of any other duties necessary to determine compliance with this chapter. Designated city staff shall have the right to set up on the property of any person subject to this chapter such devices, as are necessary, to conduct sampling and/or flow measurement of the property's stormwater operations or discharges. The city has the right to determine and impose inspection schedules necessary to enforce provisions of this chapter.
 - (5) *Stormwater management ordinance.* The intended purpose of this article is to safeguard property and public welfare by regulating stormwater quality and drainage while requiring temporary and permanent provisions for its control.

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-102. Definitions.

For the purpose of this chapter, the following definitions shall apply: Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive.

Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

Administrative or civil penalties. Under the authority provided in T.C.A. § 68-221-1106, the city declares that any person violating the provisions of this chapter may be assessed a civil penalty by the city of not less than \$50.00 and not more than \$5,000.00 per day for each day of violation. Each day of violation shall constitute a separate violation.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) Vehicle salvage yards and recycling facilities;
- (b) Vehicle service and maintenance facilities;
- {c} Vehicle and equipment cleaning facilities;
- (d) Fleet storage areas (bus, truck, etc.);
- (e) Industrial sites {included on standard industrial classification code list};
- {f} Marinas (service and maintenance);
- (g) Public works storage areas;
- (h) Facilities that generate or store hazardous waste materials;
- {i} Commercial container nursery;
- (j) Restaurants and food service facilities; or
- (k) Other land uses and activities as designated by an appropriate review authority.

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

Illicit discharge means any discharge to the municipal separate storm sewer system that is not composed entirely of stormwater and not specifically exempted under subsection 19-104(2).

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

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

- (a) Oversee the requirements of other construction-related permits, such as Aquatic Resources Alteration Permit (ARAP) or Corps of Engineers permit for construction activities in or around waters of the state;
- (b) Update field stormwater pollution prevention plan(s) (SWPPP);
- (c) Conduct pre-construction inspection to verify that undisturbed areas have been properly marked and initial measures have been installed; and

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- (d) Inform the permit holder of activities that may be necessary to gain or remain in compliance with the construction general permit (CGP) and other environmental permits.

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

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

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

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

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

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

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

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

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

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

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

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

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

Sedimentation means soil particles suspended in stormwater that can settle in stream beds.

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

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

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

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

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

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

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

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

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

Stormwater pollution prevention plan (SWPPP) means a written plan that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the stormwater, and a description of measures or practices to control these pollutants. It must be prepared and approved before construction begins. In order to effectively reduce erosion and

sedimentation impacts, best management practices (BMPs) must be designed, installed, and maintained during land-disturbing activities. The SWPPP should be prepared in accordance with the current Tennessee Erosion and Sediment Control Handbook. The handbook is intended for use during the design and construction of projects that require erosion and sediment controls to protect waters of the state. It also aids in the development of SWPPPs and other reports, plans, or specifications required when participating in Tennessee's water quality regulations. All SWPPPs shall be prepared and updated in accordance with the most current CGP for discharges of stormwater associated with construction activities.

Stormwater runoff means flow on the surface of the ground, resulting from precipitation.

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

Structural BMPs means facilities that are constructed to provide control of stormwater runoff.

Surety means a letter of credit or other acceptable form of assurance for completion of improvements as needed acceptable by the city attorney, administrator, and/or other city personnel.

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

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

Water quality buffer. See "buffer."

Watercourse means a permanent or intermittent stream or other body of water, either natural or manmade, which gathers or carries surface water.

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

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

Wetland(s) means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas.

Wet weather conveyances means manmade or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and are not suitable for drinking water supplies; and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or

low flow, there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months. (Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04(3).)

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-103. Waivers.

- (1) *General.* No waivers will be granted to any construction or site work project. All construction and site work shall provide for stormwater management as required by this article. However, alternatives to the primary requirement(s) for on-site permanent stormwater management may be considered, if:
 - (a) Management measures cannot be designed, built and maintained to infiltrate, evapotranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by 72 hours of no measurable precipitation. This first inch of rainfall must be 100 percent managed with no discharge to surface waters.
 - (b) It can be demonstrated that the proposed development will not discharge, during or after construction; stormwater runoff that contains contaminants or will otherwise not affect, impair or degrade adjacent or downstream properties, conveyances, or streams.
 - (c) Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the city.
- (2) *Downstream damage, etc., prohibited.* In order to receive consideration, the applicant must demonstrate to the satisfaction of the administrator that the proposed alternative will not lead to any of the following conditions downstream:
 - (a) Deterioration of existing culverts, bridges, dams, structures or land;
 - (b) Degradation of biological functions or habitat;
 - (c) Accelerated streambank or streambed erosion or siltation;
 - (d) Increased threat of flood damage to public health, life or property.
- (3) *Alternative request procedure.* For consideration of an alternative stormwater management measure, a formal request shall be submitted to the administrator. The formal request shall be submitted with a stormwater management plan outlining why the primary stormwater management measure cannot be addressed and how the alternative measures will address the provisions outlined in this article. The plan shall demonstrate how the proposed development is not likely to impair attainment of the objectives of this chapter. The administrator shall notify the appellant customer of the date of the alternative request in writing; such written notice shall be given at the address provided following review of the request. The decision made by the administrator will be final and conclusive with no further administrative review.
- (4) *Land disturbance permits not to be issued where alternatives requested.* No land disturbance permit shall be issued where an alternative has been requested until the

alternative is approved, unless allowed by the administrator. If no alternative is approved, the plans must be resubmitted with a stormwater management plan that meets the primary requirement for on-site stormwater management. If no alternative is approved, the owner has 30 days to resubmit the land disturbance permit without facing additional fees. If the land disturbance permit is submitted more than 30 days following the alternative request decision by the administrator, applicable fees will be charged.

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-104. Land disturbance permit.

- (1) *General.* The land disturbance permit is to be obtained by the owner(s) or owner(s) designee(s) for development or redevelopment of over an acre, or less than an acre if required by the administrator. The land disturbance permit is designed to track all applicable land disturbance activities and ensure they are monitored for compliant erosion prevention and sediment controls, the absence of illicit discharges leaving the site, and compliance with the city's TDEC NPDES MS4 general permit along with any applicable TDEC construction general permits, TDEC Aquatic Resources Alteration Permits (ARAP), and any other relevant permits. Tracking of these activities allows inspection, and in cases of non-compliance, enforcement actions to be taken.
- (2) *Exemptions.* The following land disturbance activities are exempt from the requirements of obtaining a land disturbance permit:
 - (a) Surface mining as is defined in T.C.A., § 59-8-202.
 - (b) Such minor land-disturbing activities as home gardens and individual home landscaping, home repairs, home additional or modifications, home maintenance work, and other related activities that result in no soil erosion leaving the site. (Erosion Prevention and Sediment Control (ESPC) practices may be enforced through individual building permits.)
 - (c) Agriculture practices involving the establishment, cultivation or harvesting of products in the field or orchard, preparing and planting of pastureland, farm ponds, dairy operations, livestock and poultry management practices.
 - (d) Installation, maintenance, and repair of any underground public utility lines when such activity occurs on an existing road, street or sidewalk which is hard surfaced and such street, curb, gutter, or sidewalk construction has been approved.
 - (e) Any emergency activity that is immediately necessary for the protection of life, property, or natural resources. These activities may be undertaken without a land disturbance permit; however, the person conducting these excluded activities shall remain responsible for conducting these activities within accordance with provisions of this ordinance and other applicable regulations including responsibility for controlling sediment, illicit discharges, and runoff.
- (3) *Supplemental permit.* In cases where a secondary owner/operator will be working within an area already covered by an existing land disturbance permit that was issued under the name

of a primary owner/operator, a supplemental land disturbance permit shall be obtained prior to commencement of the secondary owner/operators work. The application fee may be waived for any supplemental permit. Where applicable, prior to issuance of the supplemental land disturbance permit, the secondary owner/operator must show that coverage under the site's NPDES construction general permit has been obtained. Once covered by a land disturbance permit, all primary and secondary owner/operators will be considered by the city as co-permittees. If co-permittee's involvement in the construction activities affects the same project site, they will be held jointly and severally responsible for complying with the terms of the permits issued for that site.

- (4) *Application.* Application for the land disturbance permit shall be made to the administrator by the property owner(s) and co-permittee (if applicable). Applications are available from the public works department, or assigned division. No land-disturbing activities shall take place prior to approval of the land disturbance permit application.

Application fees must be paid and the recorded inspection and maintenance agreement filed (original returned to public works, or assigned division) prior to issuance of the land disturbance permit.

- (5) *Permit requirements.* The following are conditions of land disturbance permit coverage. Any violation of these conditions will make the permit holder(s) subject to all enforcement actions and penalties outlined in this article.

- (a) Submittal and approval by city staff and board(s) of the erosion prevention and sediment control plans.
 - (b) Compliance with the site's TDEC construction general permit, TDEC ARAP, TDEC underground injection well permit, FEMA flood plain development permit, and other federal or state permits where applicable.
 - (c) Compliance with approved erosion prevention and sediment control plan and EPSC performance standards.
 - (d) Implementation and maintenance of appropriate erosion prevention and sediment control best management practices.
 - (e) Construction site operators must control wastes such as discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste at the construction site to avoid adverse impacts to water quality.
- (6) Land disturbance surety. Prior to the issuance of a permit for any land disturbance activity, the applicant shall be required to provide a surety to the City of Millersville to guarantee completion of all land and grade stabilization measures and improvements as shown by the approved grading plan. For areas when potentially hazardous soil or drainage conditions exist due to types of soils, steep grades, floodplain development, streams, or drainage ditches, the applicant may be required, to provide a surety to guarantee completion of all land and grade stabilization measures and improvements as shown by the approved plan.
- (7) *Permit duration.* Each land disturbance permit shall expire and become null and void when one of the following has occurred:

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

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-105. Stormwater system design: construction and permanent stormwater management performance standards.

- (1) *Applicability.* This section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, land disturbance applications and grading applications. The requirements in this section shall apply to any new development or redevelopment site that meets one or more of the following criteria:
 - (a) One acre or more;
 - (i) New development that involves land disturbance activities of one acre or more;
 - (ii) Redevelopment that involves other land disturbance activity of one acre or more;
 - (b) Developments and redevelopments less than one acre of total land disturbance may also be required to obtain authorization under this ordinance if:
 - (i) The administrator has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;
 - (ii) The administrator has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to waters of the state; or
 - (iii) Any new development or redevelopment, regardless of size, that is defined by the administrator to be a hotspot land use.
 - (c) Other options:
 - (i) Change in elevation of property.
 - (ii) Any land disturbance that requires coverage under a TDEC construction general permit.
 - (iii) Any disturbance that requires coverage under a TDEC ARAP.

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- (2) *General requirements.* Stormwater at applicable developments and redevelopments shall be managed in accordance with the requirements contained within this section.
- (a) Any discharge of stormwater or other fluid to an improved sinkhole or other injection well, as defined, must be authorized by permit or rule as a Class V underground injection well under the provisions of Tennessee Department of Environment and Conservation (TDEC) Rules, chapter 1200-4-6.
 - (b) Stormwater design or BMP manuals.
 - (i) Adoption. The city adopts as its MS4 stormwater design and best management practices (BMP) manuals for stormwater management, construction and permanent, the following publications, which are incorporated by reference in this ordinance as if fully set out herein:
 - (A) TDEC Erosion Prevention and Sediment Control Handbook; most current edition.
 - (B) Tennessee Permanent Stormwater Management and Design Guidance Manual; most current edition.
 - (C) Metro Nashville Stormwater Management Manual Volume 5, Low Impact Development.
 - (D) And/or a collection of city approved BMPs.
 - (ii) The publications listed above include a list of acceptable BMPs including the specific design performance criteria and operation and maintenance requirements. These include city approved BMPs for permanent stormwater management including green infrastructure BMPs.
 - (iii) Stormwater facilities that are designed, constructed and maintained in accordance with these publications will be presumed to meet the minimum water quality performance standards.
 - (c) Submittal of a copy of the NOC, SWPPP and NOT to the local MS4.
 - (i) Permittees who discharge stormwater through an NPDES-permitted Municipal Separate Storm Sewer System (MS4) who are not exempted in section 1.4.5 (permit coverage through qualifying local program) of TDEC's construction general permit (CGP) must provide proof of coverage under the construction general permit (CGP); submit a copy of the stormwater pollution prevention plan (SWPPP); and at project completion, a copy of the signed notice of termination (NOT) to the administrator. Permitting status of all permittees covered (or previously covered) under this general permit as well as the most current list of all MS4 permits is available at the TDEC's data viewer web site.
 - (ii) Copies of additional applicable local, state or federal permits (i.e.: ARAP, etc.) must also be provided upon request.
 - (iii) If requested by the city, these permits must be provided before the issuance of any land disturbance permit or the equivalent.

(3) *Stormwater pollution prevention plans for construction stormwater management.*

- (a) *Requirement to prepare a SWPPP.* The applicant must prepare a stormwater pollution prevention plan (SWPPP) for all construction activities that complies with subsection (6) below. The purpose of this plan is to identify owner/operator activities that could cause pollutants in the stormwater, and to describe measures or practices to control these pollutants during project construction.
- (b) *Stormwater pollution prevention plan general requirements.* The erosion prevention and sediment control plan component of the SWPPP shall adhere to the following requirements.
 - (i) The potential for soil erosion and sedimentation problems resulting from land-disturbing activity shall be accurately described.
 - (ii) The measures that are to be taken to control soil erosion and sedimentation problems shall be explained and illustrated.
 - (iii) The length and complexity of the plan must be commensurate with the size of the project, severity of the site condition, and potential for off-site damage.
 - (iv) If necessary, the measures to control soil erosion and sedimentation problems that are described in the plan shall be phased so that changes to the site that alter drainage patterns or characteristics during construction will be addressed by an appropriate phase of the plan.
 - (v) The plan shall be sealed by a registered professional engineer or landscape architect licensed in the State of Tennessee.
 - (vi) The plan shall conform to the requirements found in the most current CGP for stormwater discharges from construction activities (TNR100000), and shall include at least the following:
 - (A) Project description - Briefly describe the intended project and proposed land-disturbing activity including number of units and structures to be constructed and infrastructure required.
 - (B) A topographic map with contour intervals of five feet or less showing present conditions and proposed contours resulting from land-disturbing activity.
 - (C) All existing drainage ways, including intermittent and wet-weather. Include any designated floodways or floodplains.
 - (D) A general description of existing land cover. Individual trees and shrubs do not need to be identified.
 - (E) Stands of existing trees as they are to be preserved upon project completion, specifying their general location on the property. Differentiation shall be made between existing trees to be preserved, trees to be removed and proposed planted trees. Tree protection measures must be identified, and the diameter of the area involved must also be identified on the plan and shown to scale. Information shall be supplied concerning the proposed destruction

of exceptional and historic trees in setbacks and buffer strips, where they exist. Complete landscape plans may be submitted separately. The plan must include the sequence of implementation for tree protection measures.

- (F) Approximate limits of proposed clearing, grading and filling.
- (G) Approximate flows of existing stormwater leaving any portion of the site.
- (H) A general description of existing soil types and characteristics and any anticipated soil erosion and sedimentation problems resulting from existing characteristics.
- (I) Location, size and layout of proposed stormwater and sedimentation control improvements.
- (J) Existing and 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/detention 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 nonvegetation 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 stabilized construction entrance/exits, concrete washouts, and sediment basins for controlling erosion; road access points; eliminating or keeping soil, sediment, and debris on streets and public ways at a level acceptable to the city. Soil, sediment, and debris brought onto streets and public ways must be removed by the end of the workday to the satisfaction of the city. Failure to remove the sediment, soil or debris shall be deemed a violation of this ordinance.
- (P) Proposed structures. Location and identification of any proposed additional buildings, structures or development on the site.

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- (Q) A description of on-site measures to be taken to recharge surface water into the ground water system through runoff reduction practices.
 - (R) Specific details for construction waste management. Construction site operators shall control waste such as discarded building materials, concrete truck washout, petroleum products and petroleum related products, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality. When the material is erodible, such as soil, the site must be treated as a construction site.
- (4) *Design performance standards and requirements for permanent stormwater management.* The following performance standards shall be addressed for permanent stormwater management at all applicable development and redevelopment sites effective as of 15 days following the adoption date of the ordinance codified in this article:
- (a) Runoff reduction performance standard. The first inch of rainfall on the development or redevelopment shall be 100 percent managed with no discharge to surface waters or the public storm sewer system. This standard shall be met using measures, alone or in combination, designed, built and maintained to infiltrate, evapotranspire or harvest and use the rainfall, in accordance with the site design layout practices and stormwater control measures provided in the Tennessee Permanent Stormwater Management and Design Guidance Manual or reference Metro Nashville's Low Impact Development Design Guidelines, most current edition.
 - (i) The pre-development infiltrative capacity of soils at the development or redevelopment must be taken into account in selection of infiltration-based stormwater control measures.
 - (ii) The Tennessee Runoff Reduction Assessment Tool (TN-RRAT) or Metro Nashville's Stormwater Management Manual Volume 5, Low Impact Development design guidelines shall be used by the site designer to determine compliance with the runoff reduction requirement.
 - (iii) Incentive standard: The following types of development or redevelopment shall receive a ten-percent reduction in the volume of rainfall to be managed for any of the following types of development. Such incentives are additive such that a maximum reduction of 50 percent of the runoff reduction performance standard is possible for a project that meets all five development types:
 - (A) Redevelopment;
 - (B) Brownfield redevelopment;
 - (C) High density developments having greater than seven units per acre;
 - (D) Vertical density developments having a floor to area ratio (FAR) of two or greater than 18 units per acre; and
 - (E) Mixed use and transit oriented development that is located within one-half mile of a mass transit station.

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- (b) Runoff reduction performance standard compliance. Developments and redevelopments that achieve 100 percent of the runoff reduction performance standard (or incentive standard if applicable) using only site design layout practices and/or stormwater control measures that are designed, built and maintained to infiltrate, evapotranspire or harvest and use the rainfall shall be exempt from compliance with the 80 percent TSS removal performance standard.
 - (c) Runoff reduction limitations. Limitations to the application of runoff reduction requirements may prevent a development or redevelopment from meeting 100 percent of the runoff reduction requirement. Such limitations may include, but are not limited to:
 - (i) Natural physical conditions exist at the development or redevelopment that preclude or highly limit the use of infiltration practices. Such conditions include, but are not limited to, the following circumstances:
 - (A) The presence of sinkholes or other karst features;
 - (B) A high prevalence of shallow bedrock;
 - (C) A high prevalence of poorly drained soils (i.e., hydrologic soil group D), such that soil amendments to promote infiltration must be extensive;
 - (D) A high prevalence of contractive/expansive soils and their proximity to on-site or off-site structures;
 - (E) Slopes greater than the maximums identified for the appropriate application of stormwater control measures;
 - (ii) The development lacks the available area to create the necessary hydraulic capacity to fully achieve the runoff reduction requirement through infiltration or evapotranspiration;
 - (iii) The proposed use for the development is inconsistent with the capture and re-use of stormwater;
 - (iv) Soil or topographic conditions at the development dictate that stormwater control measures which rely on infiltration to reduce stormwater volumes would be located in close proximity to on-site or off-site subsurface foundations, basements or crawlspaces where wet conditions or flooding is known or suspected to occur;
 - (v) Conditions exist at the development that create a potential for introducing pollutants into the groundwater, unless pre-treatment is provided;
 - (vi) Pre-existing soil contamination is present in areas that are or could be subject to contact with infiltrated stormwater;
 - (vii) The placement of on-site or off-site utilities precludes the use of stormwater control measures that infiltration, evapotranspire or harvest and use rainfall; and
 - (viii) The site has a historic or archeological significance that cannot be disturbed as determined by the state historic preservation office.

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- (d) Eighty percent TSS removal performance standard. Developments and redevelopments that cannot meet 100 percent of the runoff reduction performance standard using the site design layout practices and stormwater control measures provided in the Tennessee Permanent Stormwater Management and Design Guidance Manual must treat the remainder of the stipulated amount of runoff prior to discharge from the development or redevelopment with a technology documented to remove 80 percent total suspended solids (TSS), unless an alternative provided under this article is approved. The treatment technology must be designed, installed and maintained to continue to meet this performance standard.
 - (e) It can be demonstrated that multiple criteria (not based solely on the difficulty or cost of implementing measures) rule out an adequate combination of infiltration, evapotranspiration, and reuse such as lack of available area to create the necessary infiltrative capacity; a site use that is inconsistent with capture and reuse of stormwater; physical conditions that preclude use of these practices.
 - (f) Stormwater discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, water supply reservoirs, etc.) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.
 - (g) Stormwater discharges from hotspots may require the application of additional structural BMPs and pollution prevention practices beyond runoff reduction and 80 percent TSS removal practices.
 - (h) Prior to or during the site design process, applicants for land disturbance permits shall consult with the administrator to determine if they are subject to additional stormwater design requirements.
 - (i) The calculations for determining peak flows shall be used for sizing all stormwater facilities.
- (5) *Minimum peak discharge control requirements.* The administrator may establish standards to regulate the quantity of stormwater discharged, therefore:
- (a) Stormwater designs shall meet the storm frequency storage requirements; and
 - (b) If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the administrator may impose any and all additional requirements deemed necessary to control the volume, timing, and rate of runoff.
- (6) *Permanent stormwater management plan requirements.*
- (a) Requirement to prepare a permanent stormwater management plan: The permanent stormwater management plan shall be prepared and submitted to the administrator for all applicable developments and redevelopments.
 - (b) The permanent stormwater management plan shall include sufficient information to allow the administrator to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future,

on the water resources, the appropriateness of the measures proposed for managing stormwater generated at the project site, and design compliance with the performance standards and requirements for permanent stormwater management identified in this ordinance.

- (c) The permanent stormwater management plan shall be sealed by a registered professional engineer or landscape architect licensed in the State of Tennessee.
- (d) The plan shall include, at a minimum, the elements listed below:
 - (i) Topographic base map: Topographic base map of the site which extends a minimum of 100 feet beyond the limits of the proposed development and indicates:
 - (A) Existing surface water drainage including streams, ponds, culverts, ditches, sink holes, wetlands; and the type, size, elevation, etc., of nearest upstream and downstream drainage structures;
 - (B) Current land use including all existing structures, locations of utilities, roads, and easements;
 - (C) All other existing significant natural and artificial features;
 - (D) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading.
 - (ii) A completed site assessment and inventory checklist (found in the Tennessee Permanent Stormwater Management and Design Guidance Manual).
 - (iii) Proposed structural and non-structural BMPs and stormwater control measures;
 - (iv) A written description of the site plan and justification of proposed changes in natural conditions may also be required;
 - (v) Calculations: Hydrologic and hydraulic design calculations for the predevelopment and post-development conditions for the design storms specified in the approved stormwater design and BMP manuals.

These calculations must show that the proposed stormwater management measures are capable of controlling runoff from the site in compliance with this chapter and the guidelines of the approved stormwater design and BMP manuals. Such calculations shall include:

- (A) A description of the design storm frequency, duration, and intensity where applicable;
- (B) Time of concentration;
- (C) Soil curve numbers or runoff coefficients including assumed soil moisture conditions;
- (D) Peak runoff rates and total runoff volumes for each watershed area;

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- (E) Infiltration rates, where applicable;
 - {F} Culvert, stormwater sewer, ditch and/or other stormwater conveyance capacities;
 - (G) Flow velocities;
 - (H) Data on the increase in rate and volume of runoff for the design storms referenced in the approved stormwater design and BMP manuals;
 - (I) Documentation of sources for all computation methods and field test results; and
 - (J) Results from the Tennessee Runoff Reduction Assessment Tool (TNRRAT) or Metro Nashville's Stormwater Management Manual Volume 5, Low Impact Development Design.
- (vi) Soils information. If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles and soil survey reports. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.
- (vii) Eighty percent TSS removal information. If 80 percent TSS removal BMPs are included in the plan, then it must also include:
- (A) A narrative description of all runoff reduction limitations that exist at the development or redevelopment;
 - (B) A map drawn to scale showing the location and boundaries of such limitations;
 - (C) Calculations showing the volume of runoff managed by runoff reduction stormwater control practices and the volume of runoff managed by 80 percent TSS removal BMPs; and
 - (D) Calculations showing compliance with the 80 percent TSS removal performance standard.
- (vii) Maintenance and repair plan required. The design and planning of all permanent stormwater management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans will identify the parts or components of a stormwater management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-106. Buffer zones.

The goal of the water quality buffer is to preserve undisturbed vegetation that is native to the streamside habitat in the area of the project. Vegetated, preferably native, water quality buffers protect water bodies by providing structural integrity and canopy cover, as well as stormwater infiltration, filtration and evapotranspiration. Buffer width depends on the size of a drainage area. Streams or other waters with drainage areas less than one square mile will require buffer widths of 30 feet minimum. Streams or other waters with drainage areas greater than one square mile will require buffer widths of 60 feet minimum. The 60 feet criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 30 feet at any measured location. The MS4 must develop and apply criteria for determining the circumstances under which these averages will be available. A determination that standards cannot be met may not be based solely on the difficulty or cost associated with implementation. Every attempt should be made for development and redevelopment activities not to take place within the buffer zone. If water quality buffer widths as defined above cannot be fully accomplished on-site, the MS4 must develop and apply criteria for determining the circumstances under which alternative buffer widths will be available. A determination that water quality buffer widths cannot be met on site may not be based solely on the difficulty or cost of implementing measures, but must include multiple criteria, such as: type of project, existing land use and physical conditions that preclude use of these practices.

Buffer zone requirements:

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

Buffer zone requirements for discharges into unavailable or exceptional Tennessee waters: A 60-foot natural riparian buffer zone adjacent to the receiving stream designated as unavailable or exceptional Tennessee waters shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state (e.g., perennial and

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

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

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-107. Permanent stormwater management: Operation, maintenance, and inspection.

- (1) *As built plans.* All applicants are required to submit actual as built plans for any structures located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be sealed by a registered professional engineer licensed to practice in Tennessee. A final inspection by the city is required before any portion of a performance, surety, security or bond will be released. The city shall have the discretion to adopt provisions for a partial pro-rata release of the performance security or performance bond on the completion of various stages of development. In addition, occupation permits shall not be granted until corrections to all BMPs have been made and accepted by the city. At a minimum, as-built plans must include the invert elevation, top of casting elevation, slope, location, and material of all pipes, drainage inlets/outlets, junctions, etc. Size and material of all outlet dissipation pads, ditch size, slope, and materials. Top of berm elevations on all drainage facilities, volume of all detention/retention facilities and location and description of all permanent stormwater BMPs.
- (2) *Landscaping and stabilization requirements.*
 - (a) Any area of land from which the natural vegetative cover has been either partially or wholly cleared by development activities shall stabilize. Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the

construction site (or a phase of the project) must be completed no later than 15 days after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, temporary stabilization measures are not required:

- (i) Where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy ground conditions, stabilization measures shall be initiated as soon as practicable; or
 - (ii) Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 15 days.
- (b) Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. Unpacked gravel containing fines (silt and clay sized particles) or crusher runs will not be considered a non-eroding surface.
- (c) The following criteria shall apply to re-vegetation efforts:
- (i) Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over 90 percent of the seeded area.
 - (ii) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.
 - (iii) Any area of revegetation must exhibit survival of a minimum of 75 percent of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum 75 percent survival for one year is achieved.
 - (iv) In addition to the above requirements, a landscaping plan must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.
- (3) *Inspection of stormwater management facilities.* Periodic inspections of facilities shall be performed, documented, and reported in accordance with this chapter, as detailed in subsection 19-108(3).
- (4) *Records of installation and maintenance activities.* Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation of the stormwater facility, and of all maintenance and repairs to the facility, and shall retain the records for at least three years. These records shall be made available to the city during inspection of the facility and at other reasonable times upon request.

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

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-108. Existing locations and ongoing developments.

(1) *On-site stormwater management facilities maintenance agreement.*

- (a) Where the stormwater facility is located on property that is subject to a development agreement, and the development agreement provides for a permanent stormwater maintenance agreement that runs with the land, the owners of property must execute an inspection and maintenance agreement that shall operate as a deed restriction binding on the current property owners and all subsequent property owners and their lessees and assigns, including, but not limited to, homeowner associations or other groups or entities.
- (b) The maintenance agreement shall:
- (i) Assign responsibility for the maintenance and repair of the stormwater facility to the owners of the property upon which the facility is located and be recorded as such on the plat for the property by appropriate notation.
 - (ii) Provide for a periodic inspection by the property owners in accordance with the requirements of subsection (v) below for the purpose of documenting maintenance and repair needs and to ensure compliance with the requirements of this article. The property owners will arrange for this inspection to be conducted by a registered professional engineer licensed to practice in the State of Tennessee, who will submit a signed written report of the inspection to the administrator. It shall also grant permission to the city to enter the property at reasonable times and to inspect the stormwater facility to ensure that it is being properly maintained.
 - (iii) Provide that the minimum maintenance and repair needs include, but are not limited to: The removal of silt, litter and other debris, the cutting of grass, cutting and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other stormwater facilities. It shall also provide that the property owners shall be responsible for

additional maintenance and repair needs consistent with the needs and standards outlined in the MS4 BMP manual.

- (iv) Provide that maintenance needs must be addressed in a timely manner, on a schedule to be determined by the administrator.
- (v) Provide that if the property is not maintained or repaired within the prescribed schedule, the administrator shall perform the maintenance and repair at its expense, and bill the same to the property owner. The maintenance agreement shall also provide that the administrator's cost of performing the maintenance shall be a lien against the property.

(2) *Existing problem locations—No maintenance agreement.*

- (a) The administrator shall in writing notify the owners of existing locations and developments of specific drainage, erosion or sediment problems affecting or caused by such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance. Discharges from existing BMPs that have not been maintained and/or inspected in accordance with this article shall be regarded as illicit.
- (b) Inspection of existing facilities. The city may, to the extent authorized by state and federal law, enter and inspect private property for the purpose of determining if there are illicit non-stormwater discharges, and to establish inspection programs to verify that all stormwater management facilities are functioning within design limits. These inspection programs may be established on any reasonable basis, including, but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of the city's NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other BMPs.

(3) *Owner/operator inspections.* The owners and/or the operators of stormwater management practices shall:

- (a) Perform routine inspections to ensure the BMPs are properly functioning. These inspections shall be conducted on an annual basis, at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at a site. Owners or operators shall maintain documentation of these inspections. The administrator may require submittal of this documentation.
- (b) Perform comprehensive inspection of all stormwater management facilities and practices. These inspections shall be conducted once every five years, at a minimum.

Such inspections must be conducted by either a professional engineer or landscape architect, licensed in the State of Tennessee. Complete inspection reports for these five-year inspections shall include:

- (i) Facility type;
 - (ii) Inspection date;
 - (iii) Latitude and longitude and nearest street address;
 - (iv) BMP owner information (e.g. name, address, phone number, fax, and email);
 - (v) A description of current BMP conditions including, but not limited to: green infrastructure practices, grassy areas, forested areas, buffer areas, growing vegetation and soil properties; inlet and outlet channels and structures; embankments, slopes, and safety benches; spillways, weirs, and other control structures; and any sediment and debris accumulation;
 - (vi) Photographic documentation of BMPs; and
 - (vii) Specific maintenance items or violations that need to be corrected by the BMP owner along with deadlines and reinspection dates.
- (c) Owners or operators shall maintain documentation of these inspections. The administrator may require submittal of this documentation.
- (4) *Requirements for all existing locations and ongoing developments.* The following requirements shall apply to all locations and development at which land-disturbing activities have occurred previous to the enactment of this ordinance:
- (a) Denuded areas must be vegetated or covered under the standards and guidelines specified in subsection 19-105(2)(c) and on a schedule acceptable to the administrator.
 - (b) Cuts and slopes must be properly covered with appropriate vegetation and/or retaining walls constructed.
 - (c) Drainage ways shall be properly covered in vegetation or secured with rip-rap, channel lining, etc., to prevent erosion.
 - (d) Trash, junk, rubbish, etc. shall be cleared from drainage ways.
 - (e) Stormwater runoff shall, at the discretion of the administrator be controlled to the maximum extent practicable to prevent its pollution. Such control measures may include, but are not limited to, the following:
 - (i) Ponds.
 - (A) Detention pond.
 - (B) Extended detention pond.
 - (C) Wet pond.
 - (D) Alternative storage measures.
 - (ii) Constructed wetlands.

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- (iii) Infiltration systems.
 - (A) Infiltration/percolation trench.
 - (B) Infiltration basin.
 - (C) Drainage (recharge) well.
 - (D) Porous pavement.
 - (iv) Filtering systems.
 - (A) Catch basin inserts/media filter.
 - (B) Sand filter.
 - (C) Filter/absorption bed.
 - (D) Filter and buffer strips.
 - (v) Open channel.
 - (A) Swale.
- (5) *Corrections of problems subject to appeal.* Corrective measures imposed by the administrator under this section are subject to appeal under section 19-112 of this chapter.

Sec. 19-109. Illicit discharges.

- (1) *Scope.* This section shall apply to all water generated on developed or undeveloped land entering the city's separate storm sewer system.
- (2) *Prohibition of illicit discharges.* No person shall introduce or cause to be introduced into the municipal separate storm sewer system any discharge that is not composed entirely of stormwater or any discharge that flows from stormwater facility that is not inspected in accordance with subsection 19-108(3) shall be an illicit discharge. Non-stormwater discharges shall include, but shall not be limited to, sanitary wastewater, commercial car wash wastewater, lawn mowing debris, lawn care chemicals, grease, soap, cleaning chemicals, radiator flushing disposal, spills from vehicle accidents, carpet cleaning wastewater, effluent from septic tanks, improper oil disposal, laundry wastewater/gray water, improper disposal of auto and household toxics. The commencement, conduct or continuance of any non-stormwater discharge to the municipal separate storm sewer system is prohibited except as described as follows:
 - (a) Uncontaminated discharges from the following sources:
 - (i) Water line flushing or other potable water sources;
 - (ii) Landscape irrigation or lawn watering with potable water;
 - (iii) Diverted stream flows;
 - (iv) Rising ground water;
 - (v) Groundwater infiltration to storm drains;

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- (vi) Pumped groundwater;
 - (vii) Foundation or footing drains;
 - (viii) Crawl space pumps;
 - (ix) Air conditioning condensation;
 - (x) Springs;
 - (xi) Non-commercial washing of vehicles;
 - (xii) Natural riparian habitat or wetland flows;
 - (xiii) Swimming pools (if dechlorinated - typically less than one PPM chlorine);
 - (xiv) Firefighting activities;
 - (xv) Any other uncontaminated water source.
- (b) Discharges specified in writing by the city as being necessary to protect public health and safety.
 - (c) Dye testing is an allowable discharge if the city has so specified in writing.
 - (d) Discharges authorized by the Construction General Permit (CGP), which comply with section 3.5.9 of the same:
 - (i) Dewatering of work areas of collected stormwater and ground water (filtering or chemical treatment may be necessary prior to discharge);
 - (ii) Waters used to wash vehicles (of dust and soil, not process materials such as oils, asphalt or concrete) where detergents are not used and detention and/or filtering is provided before the water leaves site;
 - (iii) Water used to control dust in accordance with CGP section 3.5.5;
 - (iv) Potable water sources including waterline flushings from which chlorine has been removed to the maximum extent practicable;
 - (v) Routine external building washdown that does not use detergents or other chemicals;
 - (vi) Uncontaminated groundwater or spring water; and
 - (vii) Foundation or footing drains where flows are not contaminated with pollutants (process materials such as solvents, heavy metals, etc.).
- (3) *Prohibition of illicit connections.* The construction, use, maintenance or continued existence of illicit connections to the municipal separate storm sewer system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
 - (4) *Reduction of stormwater pollutants by the use of best management practices.* Any person responsible for a property or premises, which is, or may be, the source of an illicit

discharge, may be required to implement, at the person's expense, the 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 in compliance with the provisions of this section.

Discharges from existing BMPs that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

- (5) *Notification of spills.* Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting in, or may result in, illicit discharges or pollutants discharging into, the municipal separate storm sewer system, the person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials the person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, the person shall notify the city in person or by telephone, fax, or email, no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the city within three business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.
- (6) *No illegal dumping allowed.* No person shall dump or otherwise deposit outside an authorized landfill, convenience center or other authorized garbage or trash collection point, any trash or garbage of any kind or description on any private or public property, occupied or unoccupied, inside the city.
- (7) *Hot spots.* The administrator is authorized to regulate hot spots. Upon written notification by the administrator, the property owner or designated facility manager of a hot spot area shall, at their expense, implement necessary controls and/or best management practices to prevent discharge of contaminated stormwater to the municipal separate storm sewer system. The administrator may require the facility to maintain inspection logs or other records to document compliance with this paragraph.

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-110. Enforcement.

- (1) *Enforcement authority.* The administrator shall have the authority to issue notices of violation and citations, and to impose the civil penalties provided in this section. Measures authorized include:
 - (a) *Verbal warnings.* At a minimum, verbal warnings must specify the nature of the violation and required corrective action.

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- (b) *Written notices.* Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.
 - (c) *Citations with administrative penalties.* The MS4 has the authority to assess monetary penalties, which may include civil and administrative penalties.
 - (d) *Stop work orders.* Stop work orders that require construction activities to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.
 - (e) *Withholding of plan approvals or other authorizations.* Where a facility is in noncompliance, the MS4's own approval process affecting the facility's ability to discharge to the MS4 can be used to abate the violation.
 - (f) *Additional measures.* The MS4 may also use other escalated measures provided under local legal authorities. The MS4 may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project's bond or directly billing the responsible party to pay for work and materials.
- (2) *Notification of violation.*
- (a) *Verbal warning.* Verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time, which time shall be approved by the inspector.
 - (b) *Written notice.* Whenever the administrator finds that any permittee or any other person discharging stormwater has violated or is violating this article or a permit or order issued hereunder, the administrator may serve upon such person written notice of the violation. Within ten days of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the administrator. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice of violation.
 - (c) *Consent orders.* The administrator is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the person to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraphs (d) and (e) below.
 - (d) *Show cause hearing.* The administrator may order any person who violates this chapter, permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten days prior to the hearing.

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- (e) *Compliance order.* When the administrator finds that any person has violated or continues to violate this chapter or a permit or order issued thereunder, he may issue an order to the violator directing that, following a specific time period, adequate structures or devices be installed and/or procedures implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring, and management practices.
 - (f) *Cease and desist and stop work orders.* When the administrator finds that any person has violated or continues to violate this chapter or any permit or order issued hereunder, the administrator may issue a stop work order or an order to cease and desist all such violations and direct those persons in noncompliance to:
 - (i) Comply forthwith; or
 - (ii) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation; including halting operations except for terminating the discharge and installing appropriate control measures.
 - (g) *Suspension, revocation or modification of permit.* The administrator may suspend, revoke or modify the permit authorizing the land development project or any other project of the applicant or other responsible person within the city. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated upon such conditions as the administrator may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.
 - (h) *Conflicting standards.* Whenever there is a conflict between any standard contained in this chapter and in the BMP manual(s) adopted by the city under this ordinance, the strictest standard shall prevail.

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-111. Penalties.

- (1) *Violations.* Any person who shall commit any act declared unlawful under this chapter, who violates any provision of this chapter, who violates the provisions of any permit issued pursuant to this chapter, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the administrator, shall be guilty of a civil offense.
- (2) *Penalties.* Under the authority provided in T.C.A., § 68-221-1106, the city declares that any person violating the provisions of this chapter may be assessed a civil penalty by the administrator of not less than \$50.00 and not more than \$5,000.00 per day for each day of violation. Each day of violation shall constitute a separate violation.
- (3) *Measuring civil penalties.* In assessing a civil penalty, the administrator may consider:

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- (a) The harm done to the public health or the environment;
 - (b) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
 - (c) The economic benefit gained by the violator;
 - (d) The amount of effort put forth by the violator to remedy this violation;
 - (e) Any unusual or extraordinary enforcement costs incurred by the city;
 - (f) The amount of penalty established by ordinance or resolution for specific categories of violations; and
 - (g) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.
- (4) *Recovery of damages and costs.* In addition to the civil penalty in subsection (2) above, the city may recover:
- (a) All damages proximately caused by the violator to the city, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this chapter, or any other actual damages caused by the violation.
 - (b) The costs of the city's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this chapter.
- (5) *Referral to TDEC.* Where the city has used progressive enforcement to achieve compliance with this ordinance, and in the judgment of the city has not been successful, the city may refer the violation to TDEC. For the purposes of this provision, "progressive enforcement" shall mean two follow-up inspections and/or two warning notifications. In addition, enforcement referrals to TDEC must include, at a minimum, the following information:
- (a) Construction project or industrial facility location;
 - (b) Name of owner or operator;
 - (c) Estimated construction project or size or type of industrial activity (including SIC code, if known);
 - (d) Records of communications with the owner or operator regarding the violation, including at least two follow-up inspections, two warning letters or notices of violation, and any response from the owner or operator.
- (6) *Other remedies.* The city may bring legal action to enjoin the continuing violation of this chapter, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.
- (7) *Remedies cumulative.* The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one or more of the remedies set forth herein has been sought or granted.

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-112. Appeals.

Pursuant to T.C.A., § 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this chapter may appeal said penalty or damage assessment to the city's governing body.

- (1) *Appeals to be in writing.* The appeal shall be in writing and filed with the municipal recorder or clerk within 15 days after the civil penalty and/or damage assessment is served in any manner authorized by law.
- (2) *Public hearing.* Upon receipt of an appeal, the city's governing body, or other appeals board established by the city's governing body shall hold a public hearing within 45 days. A minimum of ten days prior notice of the time, date, and location of said hearing shall be published in a daily newspaper of general circulation and/or on the city's website. The notice shall also be provided to the aggrieved party by registered mail and sent to the address provided by the aggrieved party at the time of appeal. The decision of the governing body of the city shall be final.
- (3) *Appealing decisions of the city's governing body.* Any alleged violator may appeal a decision of the city's governing body pursuant to the provisions of T.C.A., title 27, chapter 8.

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Sec. 19-113. Maintenance.

- (1) *Maintenance responsibility.*
 - (a) Any stormwater management facility or BMP which services individual property owners or subdivisions shall be privately owned with general routine maintenance (controlling vegetative grown and removing debris) provided for by the owner(s). The city has the right, but not the duty to enter premises for emergency repairs through a perpetual nonexclusive easement. The owner shall maintain a perpetual, non-exclusive easement, which allows for access for inspection and other emergency maintenance by the city.
 - (b) Any stormwater management facility or BMP which services an individual subdivision in which the facility or BMP is within designated open areas or an amenity with an established homeowners' association, or inspection and maintenance agreement, shall be privately owned and maintained consistent with provisions of this article. The city has the right, but not the duty to enter premises for emergency repairs through a perpetual nonexclusive easement. The owner shall maintain a perpetual, nonexclusive easement, which allows for access for inspection and emergency maintenance by the city.
 - (c) Any stormwater management facility or BMP which services commercial and industrial development shall be privately owned and maintained consistent with the

provisions of this title. The city has the right, but not the duty to enter premises for emergency repairs through a perpetual nonexclusive easement.

- (d) All regional stormwater management facilities proposed by the owners, if accepted by the city engineer and approved by the board of commissioners for dedication as a public regional facility shall be publicly owned and maintained.
- (e) All other stormwater management control facilities and BMPs shall be publicly owned and/or maintained only if accepted for maintenance by the city through a formal agreement recorded at the Davidson/Sumner County, Tennessee Register of Deeds. Existing or proposed drainage easements shall not constitute a formal agreement.
- (f) The city engineer may require dedication of privately owned stormwater facilities, which discharge to the city's stormwater system.

(Ord. No. 20-737, § 1(Exh. A), 3-17-2020)

Secs. 19-114—19-116. Reserved.

ARTICLE II. STORMWATER UTILITY

Sec. 19-117. Title and purpose.

This chapter shall be known as the "stormwater utility ordinance" for the City of Millersville, Tennessee.

- (1) *Introduction.* The City of Millersville finds, determines and declares that the stormwater system, which provides for the collection, treatment, storage and disposal of stormwater, provides benefits and services to all property within the incorporated City of Millersville limits. Such benefits include, but are not limited to: the provision of adequate systems of collection, conveyance, detention, retention, treatment and release of stormwater, the reductions of hazards to property and life resulting from stormwater runoff, improvements in general health and welfare through reduction of undesirable stormwater conditions, and improvements to water quality in the stormwater and surface water system and its receiving waters of the state all of which are managed by the stormwater coordinator as part of the municipal separate storm sewer system (MS4) program.
- (2) *Purpose.* The objective of this chapter is to promote the public health, safety and general welfare of the City of Millersville, Tennessee ("city") and its citizens in compliance with the Federal Clean Water Act, 33 U.S.C. 1251 et seq., and T.C.A., § 68-221-1101 et seq. which require municipalities to implement stormwater management programs, within prescribed time frames, to regulate stormwater discharges to protect water quality; establish adequate systems of collection, conveyance, detention, treatment and release of stormwater; reduce hazards of property and life-resulting from stormwater runoff; and enable municipalities to fix and require payment of fees for the privilege of discharging stormwater. The city finds that a

stormwater management system which provides for the treatment of stormwater is of benefit and provides services to all property within the city.

It is further determined and declared that charges shall be established for each parcel of real property located within the municipal limits of the city as provided hereinafter to provide for dedicated funding sources for the administration of stormwater management programs and/or stormwater system of the city. The proceeds of charges so derived shall be used for the purposes of stormwater management including, but not limited to: planning, operation, maintenance, repair, replacement and debt service of the city's stormwater management programs and system necessary to protect the health, safety and welfare of the public.

The stormwater utility purpose is to provide stormwater management for the City of Millersville including to:

- a. Administer and enforce the City of Millersville Stormwater Management Ordinance;
 - b. Administer, plan, and implement stormwater projects to protect, maintain, and enhance the environment of the City of Millersville;
 - c. Implement activities necessary to maintain compliance with the city's MS4 National Pollutant Discharge Elimination System (NPDES) Permit and applicable regulations, 40 CFR Section 122.26 for stormwater discharges;
 - d. Annually analyze the cost of services provided, and the system and structure of fees, charges, civil penalties and other revenues of the utility and make recommendations for changes therein as necessary to support the stormwater utility services; and,
 - e. Advise the board of commissioners and other City of Millersville departments on matters relating to the utility.
- (3) *Administering entity.* The stormwater utility shall be part of the Millersville Stormwater Department. The stormwater utility, under the direction and supervision of the stormwater coordinator or designee, shall administer the provisions of this stormwater utility ordinance as approved by the city manager.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-118. Jurisdiction.

The stormwater utility ordinance shall govern all properties within the corporate limits of the City of Millersville, in Tennessee.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-119. Definitions.

For the purpose of this chapter, the following definitions shall apply:

City administrator. The city manager for the City of Millersville or his/her designee.

Agricultural property. Property which is zoned agricultural and/or property which yields an annual minimum, or in which the annual minimum has been met in two of the last five years, of \$1,000.00 of agricultural products produced and/or sold from the operation of the property. Agricultural production shall include agricultural, forest, and/or livestock production as defined by the United States Department of Agriculture, Natural Resources Conservation Service, Environmental Quality Incentive Program. Proof of agricultural producer status may include IRS from 1040 Schedule F or other accounting records certified by a tax preparer.

Base rate or unit rate. The stormwater user fee for a detached single family residential property or the rate per ERU for other developed property in the City of Millersville.

Best management practices or BMPs. The physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of water, that have been approved by the City of Millersville, and that have been incorporated by reference into the stormwater management ordinance as if fully set out therein.

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

Deficient property. Real property that does not have adequate stormwater facilities as required in the latest edition of the City of Millersville Subdivision Regulations and Stormwater Management Ordinance.

Developed property. Real property which has been altered from its natural state by the creation or addition of buildings, structures, pavement or other impervious surfaces, or by the alteration of the property that results in a meaningful change in the hydrology of the property during and following rainfall events.

Equivalent residential unit (ERU). The representative square footage of a detached single family residential property building site as determined pursuant to this chapter.

Exempt property. All public rights-of-way, public streets and public roads, public alleys, public sidewalks and public greenways, public drainage facilities, owners and/or operators of agricultural land, in the municipality, upon which the owner and/or operator conducts activities that enable the owner and/or operator to satisfy the requirements of a qualified farmer or nurseryman under Tennessee law, and railroad right-of-way properties within the City of Millersville. For purposes of this definition, "public" shall mean that which is maintained by or is or is to be dedicated to the City of Millersville and/or the State of Tennessee or the government of the United States.

Fiscal year. July 1 of a calendar year to June 30 of the next calendar year, both inclusive.

Impervious surface. A surface which is compacted or covered with material that is resistant to infiltration by water, including, but not limited to, most conventionally surfaced streets, roofs,

sidewalks, patios, driveways, parking lots, and any other oiled, graveled, graded, compacted, or any other surface which impedes the natural infiltration of surface water.

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

Manager means the City of Millersville City Manager or his/her designee who is designated to supervise the operation of the stormwater management programs and system.

Multi-family residential property means residential structure/structures located on a parcel that are designed with five or more dwelling units which accommodate five or more families or groups of individuals living separately and not sharing the same living space.

Other developed property means all developed property located within the municipal limits of the city with impervious surface area greater than 400 square feet other than (i) residential property; (ii) exempt property; (iii) vacant property and (iv) park lands/cemetery. Other developed property shall include commercial properties, industrial properties, apartments, parking lots, hospitals, schools, recreational and cultural facilities, industrial properties, hotels, offices, churches, federal, state and local government properties and multi-use properties. Such property shall also include single family dwellings which are attached to or otherwise a part of a building housing a commercial enterprise. Any residential structure which contains more than four attached dwelling units is specifically included in this definition.

Park land/cemetery means all real property owned by federal, state and/or local governments that has been designated by such governmental entity for use as a public park or cemetery.

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

Property owner. The property owner of record as listed in the city's and/or county's tax assessment roll. A property owner includes any individual, corporation, firm, partnership, or group of individuals acting as a unit, and any trustee, receiver, or personal representative.

Runoff coefficient is a term used to describe the percentage of precipitation that leaves a particular site as runoff. Runoff is precipitation that does not soak or absorb into the soil surface and is greatly impacted by the amount of impervious surface that exists on a particular site. The runoff coefficient relates the amount of impervious surface to the intensity of development.

Single family residential property. A developed property which serves the primary purpose of providing a permanent dwelling unit to a single family. A single family detached dwelling, a townhouse, an accessory apartment or second dwelling unit, a condominium, a duplex, a triplex, a quadruplex, a villa, or a garden home is included in this definition. A single family dwelling which is attached to, or otherwise a part of, a building housing a commercial enterprise is not included in this definition.

Stormwater. Stormwater runoff, snow melt runoff, surface runoff, infiltration, and drainage.

Stormwater management means the planning, design, construction, regulation, improvement, repair, maintenance, and operation of facilities and programs relating to water, flood plains, flood control, grading, erosion, tree conservation, and sediment control.

Stormwater management fund or *fund* means the fund created by this chapter to operate, maintain, and improve the city's stormwater management system.

Stormwater system or *system* means all manmade and natural conveyances and structures, stormwater facilities, and flood control facilities within the corporate limits of the City of Millersville City and all improvements thereto for which the partial or full purpose or use is, among other things, to control discharges and flows necessitated by rainfall events; and incorporate methods to collect, convey, store, absorb, inhibit, treat, prevent or reduce flooding, over drainage, environmental degradation and water pollution or otherwise affect the quality and quantity of discharge from such system. This includes all natural conveyances (1) for which the City of Millersville has assumed a level of maintenance responsibility; (2) to which the City of Millersville has made improvements; (3) which have or may pose a threat to public property because of flooding; or (4) for which the City of Millersville is accountable under federal or state regulations for protecting the water quality within its jurisdictional boundaries.

Stormwater user fee or *fee*. The utility service fee established under this chapter and levied on owners or users of parcels or pieces of real property to fund the costs of stormwater management and of operating, maintaining, and improving the stormwater system in the City of Millersville. The stormwater user fee is in addition to other fees that the City of Millersville has the right to charge under any other rule or regulation of the City of Millersville.

Stormwater utility. A management structure that is responsible solely and specifically for the stormwater management program and system.

Surface water. Waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other watercourses, lakes, ponds, wetlands, marshes and sinkholes.

Trailer parks. Trailer parks are considered several single family units on one parcel. Assessment of these shall be by the square footage of impervious surface..

User. The owner or customer of record of property subject to the stormwater user fee imposed by this chapter.

Vacant/undeveloped property. Property on which there is no structure for which a certificate of occupancy has been issued and does not have more than 400 square feet of impervious surface area on it.

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

(Ord. No. 15-649, 1-19-2016)

Sec. 19-120. Funding of stormwater utility.

Funding for the stormwater utility's activities may include, but not be limited to, the following:

- (1) Stormwater user fees;
- (2) Civil penalties and damage assessments imposed for or arising from the violation of the City of Millersville Stormwater Management Ordinance and City of Millersville Stormwater Utility Ordinance;
- (3) Stormwater permit and inspection fees; and
- (4) Other funds or income obtained from federal, state, local, and private grants, or revolving funds, and from the Local Government Public Obligations Act of 1986 (Tennessee Code Annotated, title 9, chapter 21).

To the extent that the stormwater user fees collected are insufficient to construct needed stormwater drainage facilities, the cost of the same may be paid from such City of Millersville funds as may be determined by the board of commissioners.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-121. Stormwater utility management fund.

All revenues generated by or on behalf of the stormwater utility shall be deposited in a stormwater utility management fund and used to fulfill the purposes of the stormwater utility.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-122. Operating budget.

The board of commissioners shall adopt, based on a recommendation from the city administrator, public services director, finance director, public works superintendent and/or stormwater manager/coordinator, an operating budget for the stormwater utility management fund each fiscal year. The operating budget shall set forth for such fiscal year the estimated revenues and the estimated costs for operations and maintenance, extension and replacement and debt service.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-123. Stormwater user fee established.

There shall be imposed on each and every developed property in the City of Millersville, except exempt property, a stormwater user fee, which will be charged either monthly or as a regular interval charge, which shall be set from time to time by ordinance as adopted by the City of Millersville. Prior to establishing or amending the stormwater user fee, the City of Millersville shall advertise its intent to do so by publishing notice in a newspaper of general circulation in the

City of Millersville at least ten days in advance of the meeting of the board meeting which shall consider the adoption of the fee or its amendment.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-124. Equivalent residential unit (ERU).

Establishment. The equivalent residential unit (ERU) as a method of measurement is established for the purpose of calculating the base stormwater user fees. Such ERU shall be set as 2,900 square feet of impervious area.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-125. Property classification for stormwater user fees.

(1) *Property classifications.* For purposes of determining the stormwater user fee, all properties in the City of Millersville are classified into one of the following categories:

- a. Single family residential property;
- b. Other developed property;
- c. Vacant/undeveloped property; and
- d. Exempt property;

Single family residential fee. The board finds that the intensity of development of most parcels of real property in the City of Millersville classified as single family residential is less than the average intensity of development for other developed property and similar to each other and that it would be excessively and unnecessarily expensive to determine precisely the square footage of the impervious surface on each such parcel. Therefore, all single family residential properties, excluding duplexes and above, in the City of Millersville shall be charged the unit rate for single family residential properties regardless of the size of the parcel or the impervious surface area of the improvements.

Other developed property fee. The fee for other developed property (i.e., non-single-family residential property) in the City of Millersville shall be charged the unit rate for other developed property plus the fee associated to the square footage of impervious surface as stated in section 19-126.

Vacant/undeveloped property fee. There shall be a base \$4.00 stormwater user fee for vacant/undeveloped property or as otherwise provided by state law.

Exempt property. There shall be no stormwater user fee for exempt property or as otherwise provided by state law.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-126. Unit rate.

The board hereby establishes a unit rate for single family residential property of \$4.00 per month. The board hereby establishes a base rate for other developed property of \$4.00 per month in addition to charges for the impervious portions of the property as prescribed below:

0—300 sq. ft.	\$ 0.00
300—3,000 sq. ft.	\$ 2.00
3,000—6,000 sq. ft.	\$ 4.00
6,000—9,000 sq. ft.	\$ 6.00
9,000—15,000 sq. ft.	\$10.00
15,000—21,000 sq. ft.	\$14.00
21,000—30,000 sq. ft.	\$20.00
30,000—42,000 sq. ft.	\$28.00
42,000—57,000 sq. ft.	\$38.00
57,000—75,000 sq. ft.	\$50.00
75,000—99,000 sq. ft.	\$66.00
99,000—125,000 sq. ft.	\$70.00
Over 125,000 sq. ft.	\$80.00

(Ord. No. 15-649, 1-19-2016)

Sec. 19-127. Proper owners to pay charges.

The owner of each property/tax lot shall be obligated to pay the stormwater user fee as provided in this chapter, provided however, that if no water or sewer service is being provided by the City of Millersville or local water utility district at the property to the owner as a customer of record and such service is being provided to a customer of record other than the owner, it shall be presumed that the owner and such customer of record have agreed that the customer of record shall be obligated to pay such stormwater user fee.

If the customer of record other than the owner refuses to pay the stormwater user fee, the owner of each property shall be obligated to pay the stormwater user fee as defined in this chapter.

Single-family residential properties shall be billed a flat single-family residential fee based on the placement of utility meters. Each unit of a multi-tenant single-family residential building (up to four units) shall be the single family residential fee, to the customer of record for the unit. If units are not individually billed for any water or sewer service, i.e. water and sewer utilities are billed to a master meter, then the parcel owner for the master meter shall be billed as other developed property based on the total impervious surface area. In the case where two or more single family homes are located on one property, each single family home shall be assessed the residential fee.

Multi-family residential (greater than four units, apartments) and multi-tenant non-residential properties shall be billed an impervious-based fee according to the placement of parcels, i.e. if the property contains individual unit parcels, then the stormwater user fee shall be billed to individual units based on the unit's pro rata percentage of impervious surface. If the multi-tenant property contains only a master parcel, then the stormwater user fee for the entire impervious surface area shall be billed to the owner of record for such master parcel.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-128. Billing procedures and penalties for late payment.

- (1) *Rate and collection schedule.* The stormwater user fee shall be billed and collected monthly with the monthly utility services bill for all properties within the corporate limits.

All bills for the stormwater user fee shall become due and payable in accordance with the rules and regulations of the applicable utilities department pertaining to the collection of the stormwater user fees.

- (2) *Delinquent bills.* The stormwater user fee shall be considered delinquent if not received by the City of Millersville or applicable billing water utility by the due date stated within the utility statement, and subsequent late fees shall be imposed as set forth in the fee schedule as adopted by the board of commissioners as established by an ordinance.
- (3) *Penalties for late payment; failure to pay.* Stormwater user fees shall be subject to a late fee established by ordinance as indicated in the stormwater user fee schedule. The City of Millersville shall be entitled to recover attorney's fees incurred in collecting delinquent stormwater user fees. The city or other collecting utility provider may discontinue utility service to any stormwater user who fails or refuses to pay the stormwater user fees and may refuse to accept payment of the utility bill from any user without receiving at the same time, payment of the stormwater user fee charges owned by such user and further may refuse to re-establish service until all such fees have been paid in full.
- (4) *Mandatory statement.* Pursuant to T.C.A. § 68-221-1112, each bill that shall contain stormwater user fees shall contain the following statement in bold: "THIS FEE HAS BEEN MANDATED BY CONGRESS".

(Ord. No. 15-649, 1-19-2016)

Sec. 19-129. Appeals of fees.

Any person who disagrees with the calculation of the stormwater user fee, as provided in this chapter, may appeal such fee determination to the Millersville Board of Commissioners within 60 days after receipt of stormwater bill is due. Any appeal not filed within the time permitted by this section shall be deemed waived.

All appeals shall be filed in writing addressed to the stormwater manager/coordinator for the City of Millersville and shall state the grounds for the appeal and the amount of the stormwater user fee the appellant asserts is appropriate. The appeal shall provide such information and documentation supporting the basis of the appeal. The appeal shall be accompanied by an appeal review fee as set forth by the board of commissioners.

The Millersville Board of Commissioners shall review the appeal and determine whether the challenged determination is consistent with the provisions of this chapter. Appeals related to the stormwater user fee shall be decided based on substantiated evidence with a sound engineering and factual basis. All appeal determinations shall be applied utilizing a strict interpretation of the stormwater utility ordinance. At any hearing related to an appeal or credit determination, the city shall be allowed to present evidence, findings, and recommendations; appealing parties and applicants shall be given an opportunity to present evidence, findings, and recommendations.

The Millersville Board of Commissioners may request additional information from the appealing party; the committee may defer the determination of an appeal one time to the next regularly scheduled meeting of the Millersville Hearing Authority. Each appeal shall be placed on the Millersville Board of Commissioners agenda for the next regularly scheduled meeting, within 30 days after the stormwater manager/coordinator receives the written appeal.

The stormwater manager/coordinator shall notify the appellant customer of the date of the appeal review hearing in writing; such written notice shall be given at least ten days prior to the hearing by regular mail at the address provided in the written appeal document. The decision of the Millersville Board of Commissioners shall be final and conclusive with no further administrative review.

If a refund is due, the stormwater manager/coordinator shall authorize the refund which will be provided as the stormwater manager/coordinator deems as necessary.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-130. Stormwater user fee credit and adjustment policy.

A "stormwater user fee credits and adjustments" policy shall be developed by the stormwater manager/coordinator that provides for an appropriate reduction in the stormwater user fee for other developed property for defined actions or activities that reduce the city's cost of service or reduce the property's use of the stormwater system and which are ongoing. Application shall be made in the manner prescribed in the policy document and such user fee

credits or adjustments shall be retroactive to the first month in which the unit rates within this chapter take effect for a period of one year. Thereafter such user fee credits and adjustments shall become effective in the next month or billing cycle after final approval.

(Ord. No. 15-649, 1-19-2016)

Sec. 19-131. Effective date.

This chapter shall become effective as of the date of its passage on second reading by the board of commissioners. Stormwater user fees shall be charged as a utility billing for all customers within the corporate city limits. The effective date of the new unit rates shall be February 1, 2016.

(Ord. No. 15-649, 1-19-2016)

**APPENDIX A. CITY OF MILLERSVILLE WATER QUALITY BUFFER ZONE
POLICY**

Sec. 1. Description.

A water quality buffer zone is a strip of undisturbed native vegetation, either original or re-established, that borders streams and rivers, ponds and lakes, wetlands, and seeps. Buffers zones are most effective when stormwater runoff is flowing into and through the buffer zone as shallow sheet flow, rather than in concentrated form such as in channels, gullies, or wet weather conveyances. Therefore, it is critical that the design of any development include management practices, to the maximum extent practical, that will result in stormwater runoff flowing into and through the buffer zone as shallow sheet flow.

Buffer zones protect the physical and ecological integrity of water bodies from surrounding upland activities in the following ways:

- Filtering excess amounts of sediment, organic material, nutrients and other chemicals;
- Providing flood protection;
- Reducing storm runoff velocities;
- Protecting channel bank areas from scour and erosion;
- Providing shade for cooling adjacent water; which allows waters to hold a greater level of dissolved oxygen; and
- Providing leaf litter and large woody debris important to aquatic organisms.

(Ord. No. 10-562, App. A § I, 4-20-2010)

Sec. 2. Intent.

The intent of this policy is to protect and maintain the native vegetation in riparian areas by implementing specifications for the establishment, protection and long-term maintenance of

water quality buffers zones along all intermittent and perennial stream waterways and wetlands, in or adjacent to new development and significant redevelopment within our jurisdictional authority. This policy serves to clarify the requirements for streamside water quality buffers.

(Ord. No. 10-562, App. A § II, 4-20-2010)

Sec. 3. Design standards for water quality buffer zones.

A water quality buffer zone is required along all perennial and intermittent stream waterways and wetlands as identified on a seven-and-one-half-minute USGS quadrangle map, or as determined by the Tennessee Department of Environment and Conservation or Millersville's Public Works Department. The buffer width shall be calculated as follows:

Option #1

- (a) In areas where a floodway profile has been computed as part of an approved flood study, the buffer zone shall be the width of the floodway plus at least 50 feet perpendicular from the edge of the floodway on each side of the waterway, or 100 feet perpendicular from the top of bank on each side of the waterway, whichever is greater.
- (b) In areas where a floodway profile has not been computed as part of an approved flood study, the buffer zone shall be at least 50 feet perpendicular from the top of bank on each side of the waterway.
- (c) When delineated wetland or critical areas extend beyond the edge of the required buffer zone width, the buffer zone shall be adjusted so that the buffer zone consists of the extent of the delineated wetland plus 25 feet extending perpendicular beyond the wetland edge.

Option #2

- (a) In areas where there has been an approved flood study, the buffer zone width shall be at least 100 feet perpendicular from the top of bank on each side of the waterway.
- (b) In areas where there has not been an approved flood study, the buffer zone shall be at least 50 feet perpendicular from the top of bank on each side of the waterway.
- (c) When delineated wetland or critical areas extend beyond the edge of the required buffer zone width, the buffer zone shall be adjusted so that the buffer zone consists of the extent of the delineated wetland plus 25 feet extending perpendicular beyond the wetland edge.

Water quality buffer zone width adjustment:

- (a) If there are 15 percent to 24 percent slopes which are within the required buffer zone width, the buffer width must be adjusted to include an additional 20 feet.
- (b) If there are 25 percent or greater slopes which are within the required buffer zone width, the buffer width must be adjusted to include an additional 50 feet.
- (c) If the adjacent land use involves drain-fields from on-site sewage disposal and treatment system (i.e., septic systems), subsurface discharges from a wastewater

treatment plant, or land application of bio-solids or animal waste, the buffer zone width must be adjusted to include an additional 50 feet.

- (d) If the land use or activity involves the storage of hazardous substances or petroleum facilities, the buffer zone width must be adjusted to include an additional 100 feet.
- (e) If the land use or activity involves raised septic systems or animal feedlot operations, the buffer zone width must be adjusted to include an additional 200 feet.
- (f) If the land use or activity involves solid waste landfills or junkyards, the buffer zone width must be adjusted to include an additional 250 feet.

(Ord. No. 10-562, App. A § III(1), 4-20-2010)

Sec. 4. Water quality buffer zone management and maintenance.

The function of the water quality buffer zone is to protect the physical and ecological integrity of the waterway, to reduce flooding potential, and to filter runoff from residential and commercial development. The buffer zone vegetative target is undisturbed native vegetation.

- (a) Management of the water quality buffer zone includes specific limitations on alteration of the natural conditions. The following practices and activities are restricted within the water quality buffer zone, except with prior approval by the Millersville Public Works Department:
 - (1) Clearing or grubbing of existing vegetation;
 - (2) Soil disturbance by grading, stripping, or other practices;
 - (3) Filling or dumping; and
 - (4) Use, storage, or application of pesticides, herbicides, and fertilizers.
- (b) The following structures, practices, and activities are permitted in the water quality buffer zone, subject to the prior approval of the Millersville Public Works Department and the following specific design or maintenance features:
 - (1) Stream crossings, paths, and utilities
 - a. An analysis needs to be conducted to ensure that no economically feasible alternative is available;
 - b. The right of way should be the minimum width needed to allow for maintenance access and installation;
 - c. The angle of a crossing shall be perpendicular to the stream or buffer in order to minimize clearing requirements;
 - d. The minimum number of crossings should be used within each development, and no more than one crossing is allowed for every 1,000 linear feet of buffer zone. Where possible, the design of roadways and lots within a development should be aligned such that all streams are either to the rear or the side of individual lots, never along the front.

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- (2) Individual trees within the water quality buffer zone may be removed if in danger of falling, causing damage to dwellings or other structures, or causing blockage of the stream. The root wad or stump should be left in place, where feasible, to maintain soil stability.
- (c) All site development plans and plats prepared for recording shall:
- (1) Show the extent of any water quality buffer zone on the subject property by metes and bounds and be labeled as "water quality buffer zone";
 - (2) Provide a note to reference any water quality buffer zone stating, "There shall be no clearing, grading, construction or disturbance of soil and/or native vegetation except as permitted by the Millersville Public Works Department"; and
 - (3) Provide a note to reference any protective covenants governing all water quality buffer zones stating, "Any water quality buffer zone shown hereon is subject to protective covenants which may be found in the land records and which restrict disturbance and use of these areas."
- (d) All water quality buffer zones must be protected during development activities. Prior to the initiation of development activities, ensure adequate visibility of the water quality buffer zones by staking and flagging. Permanent boundary markers, in the form of signage approved by the Millersville Public Works Department, shall be installed prior to the completion of the development activities.
- (e) Stream banks and other areas within the water quality buffer zone must be left in a stabilized condition upon completion of the development activities. The vegetative condition of the entire streamside water quality buffer must be monitored and landscaping or stabilization performed to repair erosion, damaged vegetation, or other problems identified. Only native vegetation may be used in conjunction with stabilization activities. A guide to selecting native vegetation can be found at www.tva.com/river/landandshore/stabilization/plantsearch.htm , or obtained by contacting the Millersville Public Works Department.
- All landscaping or stabilization activities within the water quality buffer zone must have prior approval by the Millersville Public Works Department. In addition, performing work in and around waters of the state may require coverage under a state and possibly a federal permit. Contact the nearest Tennessee Department of Environment and Conservation, Division of Water Pollution Control environmental assistance center for more information on whether a proposed activity requires a permit.
- (f) All water quality buffer zones shall be maintained through a declaration of protective covenant, which is required to be submitted for approval by the Millersville Public Works Department. The covenant shall be recorded in the land records and shall run with the land and continue in perpetuity.
- (g) All lease agreements must contain a notation regarding the presence and location of protective covenants for water quality buffer zones, and which shall contain

information on the management and maintenance requirements for the water quality buffer zones for the new resident.

(Ord. No. 10-562, App. A § III(2), 4-20-2010)

Sec. 5. Waivers/variances.

- (a) This water quality buffer zone policy shall apply to all proposed development except for a development which prior to the effective date of this ordinance:
 - (1) Is covered by a valid, unexpired plat in accordance with development regulations;
 - (2) Is covered by a current, executed public works agreement;
 - (3) Is covered by a valid, unexpired building permit; or
 - (4) Has been granted a waiver in accordance with current development regulations.
- (b) The Millersville Public Works Department may grant a variance for the following:
 - (1) Those projects or activities where it can be demonstrated that strict compliance with the ordinance would result in practical difficulty or financial hardship; or
 - (2) Those projects or activities serving a public need where no feasible alternative is available; or
 - (3) The repair and maintenance of public improvements where avoidance and minimization of adverse impacts to wetlands and associated aquatic ecosystems have been addressed.
- (c) Waivers for development may also be granted in two additional forms, if deemed appropriate by the Millersville Public Works Department:
 - (1) The water quality buffer zone width may be relaxed and permitted to become narrower at some points as long as the width is not reduced to less than 35 feet perpendicular from the top of bank, and the overall average width of the buffer meets the minimum requirement.
 - (2) The Planning Department may offer credit for additional density elsewhere on the site in compensation for the loss of developable land due to the requirements of this ordinance. This compensation may increase the total number of dwelling units on the site up to the amount permitted under the base zoning.
- (d) The applicant shall submit a written request for a variance to the Millersville Public Works Department. The application shall include specific reasons justifying the variance and any other information necessary to evaluate the proposed variance request. The Millersville Public Works Department may require an alternatives analysis that clearly demonstrates that no other feasible alternatives exist and that minimal impact will occur as a result of the project or development.
- (e) When considering a request for a variance, the Millersville Public Works Department may require additional information such as, but not limited too, site design, landscape planting,

fencing, the placement of signs, and the establishment of water quality best management practices in order to reduce adverse impacts on water quality, streams, and wetlands.

(Ord. No. 10-562, App. A § IV, 4-20-2010)

Sec. 6. Conflict with other regulations.

Where the standards and management requirements of this buffer ordinance are in conflict with other laws, regulations, and policies regarding streams, steep slopes, erodible soils, wetlands, floodplains, timber harvesting, land disturbance activities or other environmental protective measures, the more restrictive requirements shall apply.

(Ord. No. 10-562, App. A § V, 4-20-2010)

APPENDIX B. CITY OF MILLERSVILLE DRY DETENTION BASIN POLICY

Sec. 1. Description.

A detention basin (also known as a detention pond) is the most common method to satisfy stormwater detention requirements. It is applicable to small and large developments, can be easily designed and constructed, and is long-lasting and durable while reducing peak flows (with adequate inspection and maintenance). This practice can also provide a reduction in sediment, as well as a reduction in nutrients, toxic materials, heavy metals, floatable materials, oxygen demanding substances, and oil and grease.

A dry detention basin is intended to drain dry between storm events but sometimes may not have a chance to drain completely between closely occurring storm events. The detention basin begins to fill as stormwater runoff enters the facility. The first flush volume is captured in order to improve water quality. One or more outlet structures then release the stormwater runoff slowly to reduce peak discharge rates and to provide time for sediments to settle. Litter and debris are prevented from leaving the detention basin, and soluble pollutants are captured by a combination of vegetation and soils.

(Ord. No. 10-562, App. B § I, 4-20-2010)

Sec. 2. Selection criteria.

- (a) The primary objective is to reduce the incoming peak flow discharge and slow the stormwater runoff response from a particular property or development, thus reducing flooding downstream.
- (b) The secondary objective is to remove suspended sediments, trash and debris, oil, grease and other pollutants to protect the water quality of Tennessee streams and channels. Although dry detention basins are usually not as effective at removing soluble pollutants as wet detention basins and wetlands, dry detention basins are usually easier and less expensive to construct, inspect and maintain. Dry detention basins can be used wherever a lack of sufficient supply water would prevent the use of wet detention basins or wetlands.

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- (c) Dry detention basins can also supply multiple benefits for passive recreation during dry periods (recreational trails, ball fields, picnicking). Portions of a dry detention basin that are not wetted frequently can be attractively landscaped or used for other purposes.

(Ord. No. 10-562, App. B § II, 4-20-2010)

Sec. 3. Design and sizing considerations.

- (a) A permanent detention basin design must be stamped by a professional engineer licensed in the state of Tennessee. The professional engineer must be qualified by education and experience to perform the necessary hydrologic and hydraulic calculations.
- (b) As the primary objective, dry detention basins must be designed to have adequate detention storage and outlet structures to limit the peak discharge rate for the post development conditions to be no greater than the peak discharge rate for the predevelopment conditions. Multi-stage detention is required for the one-year, two-year, five-year, ten-year, and 25-year storms (with NRCS Type II 24-hour rainfall distribution). Additional stages (i.e. 50-year and 100-year) may be required for special watersheds.
- (c) As the secondary objective, water quality improvement is obtained through the use of the first flush treatment volume. The first one-half inches of stormwater runoff, over the entire contributing drainage area of the development, is defined as the first flush volume (with a minimum value of 4,500 cubic feet). The initial wave of stormwater runoff is more likely to contain aerially-deposited sediments, particulates from vehicles (such as incomplete combustion, dust from brake linings, tire particles), leaves, trash, cigarette butts, etc. The first flush volume must be captured and then slowly released over a minimum 24-hour period (and maximum of 72 hours).
- (d) Additional measures may be required to improve stormwater quality, depending upon the nature of the land use and expected pollutants. Pretreatment of stormwater runoff with a media filtration inlet or oil/water separator may be necessary. A trash rack for capturing floating debris is generally considered to be standard equipment for a stormwater treatment BMP.

(Ord. No. 10-562, App. B § III, 4-20-2010)

Sec. 4. Location and layout.

Basic elements of a dry detention basin are illustrated in Figure 1. The recommended design includes the use of a sediment fore-bay to reduce sediment loading, particularly if the post-construction detention basin is a modification from a temporary sediment basin during the construction phase. The use of an upper stage (for storage of infrequent storms) is optional; there are both benefits and drawbacks. A shallow detention basin with a large surface area will usually perform better than a deeper detention basin with the same volume. However, shallow storage areas increase the overall surface area needed for detention.

Design flow paths to minimize potential short-circuiting by locating the drainage inlets to the basin as far away from the outlet structure as possible. The length-to-width ratio of a basin

should be at least 3:1. Baffles or back-slope drains may be used to prevent short-circuiting for ratios less than 3:1. Increase pond area and volume to compensate for dead spaces if topography or aesthetics require the pond to have an irregular shape. It is important to reduce the velocity of incoming stormwater using riprap or other energy dissipaters.

Although dry detention basins are generally less expensive to construct and maintain than wet detention basins, they provide lower water quality benefits. The primary disadvantage of a dry detention basin is the amount of surface area required, which can be reduced somewhat by using concrete retaining walls on one or more sides. In general, concrete retaining walls should not face southward in order to reduce the potential for heating on hot summer days.

Bedrock and topography must be considered during preliminary design. Karst topography may indicate fractured bedrock, dissolved limestone passages, or sinkholes, for which a detention basin would be highly detrimental. The additional water volume that is introduced to the underground limestone passages, or even the additional weight of ponded water, could intensify karst activity and eventually collapse the bed of the detention pond.

Interaction with site utilities must be considered during preliminary design. Typical utilities include electrical, telephone, cable TV, water, sewer, natural gas, petroleum, etc. These utilities may or may not be in a dedicated utility easement, so it is always necessary to conduct a careful site survey. Detention basins (including embankments) should not be allowed over utility lines. Conversely, utility trenches should not be constructed on existing detention basin structures.

Detention basin easements and access must be considered during preliminary design, in order to allow for the construction easement and maintenance. Detention basins that are not frequently inspected and maintained often become more of a nuisance than a beneficial part of a stormwater management program. In particular, provide access for inspection and maintenance to the sediment fore-bay and to the outlet control structure. It may also be desirable to encourage or discourage public access to the detention basin (by using site grading, signs, fences or gates). Additional safety elements include trash racks, grating over pipes and culverts, gentle side slopes whenever possible, increased visibility and/or lighting in residential areas, etc.

Small detention basins serving individual properties do not offer as much recreational benefits as community or regional detention basins would. Regional facilities can often be landscaped to offer recreational and aesthetic benefits. Jogging and walking trails, picnic areas, and ball fields are some of the typical uses. For example, portions of the facility for flood control of major design storms can be used for exercise areas, soccer fields, or football fields. Wildlife benefits can also be provided in the form of islands, buffer areas, or preservation zones. It is important to maintain such areas, however as their primary purpose is for stormwater management. Under no circumstances should debris be allowed to accumulate near the outlet.

(Ord. No. 10-562, App. B § IV, 4-20-2010)

Editor's note(s)—Figure 1 can be found in city offices on request.

Sec. 5. Volume and size.

The volume of a dry detention basin consists of two elements: the live pool (the upper portion of the basin representing detention capability) and the first flush volume (the lower portion of the basin representing stormwater quality treatment). Since the post-development peak runoff may not exceed the pre-development peak flow rate, the upper section's volume should be based on a standard storage routing method.

Detention basins shall be sized to collect the one-half inches of stormwater runoff from the entire contributing area, or the first 4,500 cubic feet of stormwater runoff, whichever is greater. The first flush volume must be released at a controlled rate over a minimum 24-hour period (and a maximum 72-hours period).

As a warning to those who design detention basins, it should be realized that future stormwater regulations are likely to be more stringent than the current regulations. This is mostly driven by national and state laws and regulations, which will require municipalities and county governments to accomplish additional pollution reduction with a proportional effort for water quality monitoring and enforcement.

(Ord. No. 10-562, App. B § V, 4-20-2010)

Sec. 6. Grading.

Side slopes of detention basins and embankment dams shall be 3:1 (H:V) or flatter, except where approved by the engineering reviewing authority. This encourages a strong growth of vegetation on the side slopes, helps to prevent soil erosion, and allows for safer mowing. Steep slopes, particularly on embankments or other fill soils, will contribute to soil erosion if not properly vegetated or stabilized, and thereby reduce or negate the effectiveness of a dry detention basin with respect to water quality. Vegetate the side slopes and basin bottom to the maximum extent practical. If significant side erosion is expected, consider the use of soil stabilization or armoring techniques. Detention basins should not be located immediately above or below a steep slope or grade, because impounded water may create slope stability problems.

Minimum width for top of embankment is six feet. The embankment height should allow for up to ten percent settlement of embankment, unless the embankment is thoroughly compacted with vibratory equipment or sheeps-foot rollers. The top of embankment (after expected settlement) shall generally be at least two feet above the top of outlet structure and at least one foot above the peak 100-year water surface elevation. Compaction in the immediate area of the emergency spillway can be difficult, but is necessary.

The use of a back-slope drain can be very beneficial in preventing erosion at detention basins. See Figure 5 for a typical detail. The back-slope drain is also useful for increasing lengths of flow paths to prevent short circuiting of the detention basin. Intercepted stormwater can be routed around the detention basin to enter at the most hydraulically distant point from the outlet structure.

(Ord. No. 10-562, App. B § VI, 4-20-2010)

Editor's note(s)—Figure 5 can be found in city offices on request.

Sec. 7. Outlet structure.

Detention basin outlet structures should be constructed of durable materials, such as concrete or masonry block. Corrugated metal pipe (CMP) and plastic (HDPE) risers and drain pipes are popular in engineering design, but are susceptible to crushing, corrosion, and flotation in detention basins. A concrete outlet structure is generally preferable to a masonry block structure because it is sturdier and more durable. Provisions should be made for sufficient reinforcement and anchoring of the riser and drain pipe system.

The specific flow-controlling elements of an outlet structure may include one or more of the following: a circular orifice, a noncircular orifice, a rectangular weir, a trapezoidal weir, a triangular weir, a V-notch weir, culvert entrance control or a riser overflow opening.

Figures 2 and 3 illustrate possible designs for the outlet structure. These details are only two possible ways to accomplish stormwater detention and stormwater quality control. The first flush volume is typically drained during a minimum time of 24 hours by using an orifice with a designed size. Maximum drain time should be less than 72 hours to allow for sufficient volume recovery prior to the next period of rainfall. The first flush volume can be filtered through sand by using an under-drain system (shown in Figure 2) or by an aboveground filter box with sand or aggregate (shown in Figure 3). Figure 4 shows an alternative outlet structure with a water quality manhole. Provide an emergency spillway in order to route large storms through the facility without overtopping.

(Ord. No. 10-562, App. B § VII, 4-20-2010)

Editor's note(s)—Figures 2—4 can be found in city offices on request.

Sec. 8. Emergency spillway.

An emergency spillway should be included in addition to the primary outlet structure on a detention pond. The purpose of this spillway is to pass storm events that exceed the design capacity of the pond, in order to prevent overtopping the embankment. The emergency spillway should be located over an undisturbed abutment area and not over the embankment fill for stability reasons, except where approved by an engineering reviewing authority. The emergency spillway capacity should be designed to prevent overtopping the embankment structure or dam during a storm event commensurate with the impoundment volume, dam size, and downstream flood hazard potential in event of dam failure. The minimum spillway capacity should be capable of handling a 100-year storm event. Where feasible, the emergency spillway should be made independent from the riser control structure to avoid the possibility of overtopping from riser or drain pipe clogging from vandalism or trash. The designer is referred to the requirements set forth in the Tennessee Safe Dams Act and Regulations at:

www.state.tn.us/environment/permits/safedam.htm .

(Ord. No. 10-562, App. B § VIII, 4-20-2010)

Sec. 9. Other design elements.

- (a) Sediment fore-bay—To facilitate the cleanout of sediment, trash, debris, leaves, etc. The sediment fore-bay typically contains five percent to ten percent of the total volume. It should be located at a point where velocities have dissipated, to allow large sediments and debris to settle out. A fore-bay can be separated from the remainder of a detention basin by several means: a lateral sill with rooted wetland vegetation, rock-filled gabion, rock retaining wall, or rock check dam placed laterally across the basin. The sediment fore-bay should be easily accessible so that it can be inspected and maintained.
- (b) Public safety should be considered, particularly in residential areas. Operating detention basins often attract neighborhood children. Avoid steep slopes and drop-offs; consider routes for escaping the detention basin if a person accidentally falls in. Avoid depths over four feet when possible; provide fencing and signs in areas where children may potentially play, and where steep slopes are used in the detention area.
- (c) A low-flow channel (or concrete trickle ditch) can assist in completely draining detention basins with flat slopes. It also assists with the observation and removal of accumulated sediment. A typical design would be a triangular ditch, four feet wide and three inches deep with a slope of one-half to one percent.
- (d) Anti-seep collars or a cutoff layer of compacted clay are required around the outlet pipe to prevent internal piping and erosion. An anti-seep collar should extend at least one pipe diameter from the culvert in all directions, with compacted clay backfill using small mechanical tampers. The designer is referred to the Tennessee Erosion & Sediment Control Handbook for anti-seep collar considerations.
- (e) To prevent the outlet riser from clogging, include trash racks or other debris barriers with a maximum opening size of six inches on all outlet structures, except for any emergency spillway structures that are designed for a 25-year storm or greater return period. Trash racks that are placed at an angle to the direction of flow tend to force debris up and away from the outlet opening and are somewhat less vulnerable to clogging. These racks should be regularly cleaned and maintained.
- (f) Provide a permanent means for vehicle access to the detention basin. Detention basins must be located in a maintenance easement so that authorities have the right to inspect the facility. This easement should be free of large trees and excessive vehicle grades.
- (g) A skimmer, oil/water separator or other type of stormwater runoff pretreatment is recommended for drainage areas having greater than 50 percent impervious surface or where there may be a potential source of oil and grease contamination. In addition to most large parking lots, oil and grease contamination is also likely for vehicle fueling and maintenance facilities.
- (h) An anti-vortex device for the outlet structure may be needed for very large detention basins in areas where public access is not controlled. The anti-vortex device may be a combination of vanes above the outlet structure or guide walls around the outlet structure, that increases the inlet flow efficiency and might lessen the chance of humans drowning or reduce the

potential for erosion and structural undercutting. The designer is referred to the Tennessee Erosion and Sediment Control Handbook for anti-vortex and trash rack considerations.

(Ord. No. 10-562, App. B § IX, 4-20-2010)

Sec. 10. Construction/inspection considerations.

Inadequate storage is the most frequent problem that occurs in the design review before construction, and also for the as-built review after construction. This can occur for several reasons:

- (1) The design engineer may not allow enough room to construct the detention basin (most often due to insufficient design detail such as slope transitions, setbacks, property lines, drainage easements, parking lot widths, inaccurate contours, or incorrect/omitted utilities locations).
- (2) The engineer who performs the stormwater computations may not be the same person who does the site layout and grading details. The required detention storage volume and outlet structure details need to be communicated clearly to the design engineer for inclusion on the plans and for construction layout.
- (3) The construction contractor may not correctly follow the design plans, and consequently, does not excavate deep enough or build berms of sufficient height to hold the required detention volume. This may occur due to rock formations encountered or to groundwater. It is important that the elevation-volume configuration shown on the plans be preserved during construction so that the detention basin functions according to intended design.
- (4) The construction contractor changes the basin configuration during the construction without being aware of the required volume. Approval from the engineer was not obtained for a design change.

It is highly recommended that the design engineer be involved in the construction and inspection phases of the detention basin. Special attention should be given to the requirements for detention basin volume, elevations and sizes of each outlet, embankment crest and emergency spillway crest elevations; embankment compaction, side slopes, size and shape of various weirs or orifices, outlet structure anchoring, trash racks, and installation of anti-seepage collars.

Proper hydraulic design of the outlet is critical to achieving good performance for both stormwater detention and stormwater quality of the dry detention basin. The two most common problems for detention basin outlets are:

- (a) The discharge capacity of the outlet system is too great at the detention design depth. This causes excessive basin outflows and results in fast drawdown times and inadequate filling of the detention basin volume. Both stormwater outflow and stormwater quality will suffer.
- (b) The outlet structure clogs because it is not adequately protected against trash and debris. The use of innovative trash racks is recommended. Effective trash racks are

often created using welded rebar with 6-inch openings. Sloped trash racks are preferable to vertical ones for forcing floating debris upward and away from the opening, rather than being forced against the trash rack, and causing clogging. This is sufficient to stop most beverage cans, fast food containers, tree limbs, etc. Properly designed and installed trash racks also provide a measure of safety to children who may otherwise be pulled toward and held against the opening.

(Ord. No. 10-562, App. B § X, 4-20-2010)

Sec. 11. Inspection and maintenance.

Effective and safe operation of a detention basin depends on continuous maintenance of all system components. Detention basin easements and access must be considered during the planning stage in order to allow for proper inspection and maintenance.

- (1) Inspect the dry detention basin regularly (e.g. at least monthly) and particularly after heavy rainfall events. Record all observations and problems. Perform any maintenance and repair erosion promptly. Remove debris and trash after storm events. Check all outlet structures regularly for clogging.
- (2) Detention basins should be surveyed approximately every five years to check for adequate embankment settlement and freeboard and for storage volume as per intended engineering design calculations and plans.
- (3) Remove sediment when accumulation becomes noticeable (one inch to two inches over a wide area) or if resuspension is observed or probable. Sediment may be permitted to accumulate if the detention basin volume has been over-designed with adequate controls to prevent further sediment movement. If a sand under-drain is used, look for reduced first flush infiltration or ponded water; sand layer replacement or maintenance may be needed.
- (4) Maintain a thick and healthy stand of vegetation (usually grass). Mow or trim at regular intervals to encourage thick growth. Remove leaves, grass clippings, or sticks from detention basin regularly to prevent stormwater pollution. Remove trees or nuisance vegetation as necessary to ensure structural integrity of embankments. Signs should be posted at detention ponds to discourage local homeowners from depositing yard trimmings, waste, and fill materials inside the basin. Appropriate signs and barriers such as fences should also be considered at detention basins where children have easy access to the site.

(Ord. No. 10-562, App. B § XI, 4-20-2010)

Sec. 12. Sediment removal.

A primary function of stormwater treatment BMPs is to collect and remove sediment, which is a pollutant itself and is associated with several other attached pollutants. The sediment accumulation rate is dependent on a number of factors including watershed size, facility sizing, construction upstream, and nearby industrial or commercial activities, etc. Sediments should be

identified before sediment removal and disposal is performed. Special attention or sampling should be given to sediments accumulated from industrial or manufacturing facilities, heavy commercial sites, fueling centers or automotive maintenance areas, parking areas, or other areas where pollutants are suspected. Sediment should be treated as potentially hazardous until proven otherwise.

Some sediment may contain contaminants for which TDEC requires special disposal procedures. Consult TDEC—Division of Water Pollution Control if there is any uncertainty about what the sediment contains or if it is known to contain contaminants. Clean sediment may be used as fill material or land spreading. It is important that this material not be placed in a way that will promote or allow re-suspension in stormwater runoff. Some demolition or sanitary landfill operators will allow the sediment to be disposed at their facility for use as cover. This generally requires that the sediment be tested to ensure that it is innocuous.

(Ord. No. 10-562, App. B § XII, 4-20-2010)

Sec. 13. Limitations and special requirements.

- (a) A dry detention basin will require frequent inspection and maintenance. Trash, debris, leaves and other large items should be removed from the detention basin following each rainfall event. If upstream erosion is not properly controlled, dry detention basins can be maintenance-intensive with respect to sediment removal, nuisance odors, insects and mosquitoes, etc.
- (b) A dry detention basin may not have sufficient vegetation on the slopes and bottom to prevent erosion. Vegetation must be maintained and cut at adequate intervals. Remove grass clippings from detention basin immediately after cutting, using rakes or other hand equipment.
- (c) A dry detention basin that impounds more than 30 acre-feet of volume (and minimum six feet high) or which is higher than 20 feet (and minimum 15 acre-feet of volume) is subject to the Tennessee Safe Dams Act of 1973 and as amended by law. The Safe Dams Act is administered by the TDEC Division of Water Supply; further information on design standards, regulations and permit applications is available at the TDEC website:

<http://www.state.tn.us/environment/permits/safedam.htm>

(Ord. No. 10-562, App. B § XIII, 4-20-2010)