Town of Arlington

Municipal Separate Storm Sewer System (MS4) Annual Report

Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)

Municipal Separate Storm Sewer System (MS4) Annual Report

1. MS4 Information

Town of Arlington		TNS088323	
Name of MS4		MS4 Permit Number	
Angela Reeder		areeder@townofarlington.org	
Name of Contact Person		Email Address	
901-867-3449			
Telephone (including area code)			
P.O. Box 507, 5854 Airline Road			
Mailing Address			
Arlington	TN	38002-0507	
City	State	ZIP code	

What is the current population of your MS4? 12,090 (2013 special census)

What is the reporting period for this annual report? From July 1, 2015 to June 30, 2016

2. Water Quality Priorities (Section 3.1)

A. Does your MS4 discharge into waters listed as impaired on TN's most current 303(d) list and/or according to the on-line GIS mapping tool? ☒ Yes ☐ No

B. If yes, please attach a list all impaired waters within your jurisdictional area.

C. Does your MS4's jurisdictional area contain any waterbodies where a TMDL has been approved for parameters other than pathogens, siltation and habitat alterations? If yes, please attach a list. ☐ Yes ☒ No

D. Does your MS4 discharge to any Exceptional TN Waters (ETWs) or Outstanding National Resource Waters (ONRWs)? If yes, please attach a list. ☐ Yes ☒ No

E. Are you implementing additional specific provisions to ensure the continued integrity of ETWs or ONRWS located within your jurisdiction? ☐ Yes ☒ No

3. Protection of State or Federally Listed Species (Section 3.2.1 General Permit for Phase II MS4s)

A. Are there any state or federally listed species within the MS4's jurisdiction? ☒ Yes ☐ No

B. Are any of the MS4 discharges or discharge-related activities likely to jeopardize any state or federally listed species? ☐ Yes ☒ No

C. Please attach any authorizations or determinations by U.S. Fish & Wildlife Service on the effect of the MS4 discharges on state or federally listed species.

4. Public Education and Public Participation (Section 4.2.1 and 4.2.2)

A. Have you developed a Public Information and Education plan (PIE)? ☒ Yes ☐ No

B. Is your public education program targeting specific pollutants and sources of those pollutants, such as Hot Spots? ☐ Yes ☒ No

C. If yes, what are the specific causes, sources and/or pollutants addressed by your public education program? Household discharges including yard waste, pet waste, paints, and solvents. Construction site runoff.

D. Note specific successful outcome(s) (NOT tasks, events, publications) fully or partially attributable to your public education program during this reporting period. Citizens have become more aware of stormwater issues.

E. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your stormwater program? ☐ Yes ☒ No

F. How do you facilitate, advertise, and publicize public involvement and participation opportunities? Town of Arlington website and work and relationships with community groups

G. Do you have a webpage dedicated to your stormwater program? ☒ Yes ☐ No

If so, what is the link/URL:
http://townofarlington.org/departments/planning_and_development/stormwater_and_water_quality_management.php

H. Are you tracking and maintaining records of public education, outreach, involvement and participation activities? Please attach a summary of these activities. ☒ Yes ☐ No

5. Illicit Discharge Detection and Elimination (Section 4.2.3)

A. Have you completed a map of all outfalls and receiving waters of your storm sewer system? ☒ Yes ☐ No

B. Have you completed a map of all storm drain pipes of storm sewer system? ☒Yes ☐ No

C. How many outfalls have you identified in your system? 2,226

D. Have any of these outfalls been screened for dry weather discharges? ☐Yes ☒ No

F. What is your frequency for screening outfalls for illicit discharges? N/A

G. Do you have an ordinance that effectively prohibits illicit discharges? ☒ Yes ☐ No

H. During this reporting period, how many illicit discharges/illegal connections have you discovered (or been reported to you)? N/A

I. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated? N/A

6. Construction Site Stormwater Runoff (Section 4.2.4)

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

Erosion and sediment control requirements? ☒ Yes ☐ No

Other construction waste control requirements? ☒ Yes ☐ No

Requirement to submit construction plans for review? ☒ Yes ☐ No

MS4 enforcement authority? ☒ Yes ☐ No

B. How many active construction sites disturbing at least one acre were there in your jurisdiction this reporting period? 52

C. How many of these active sites did you inspect this reporting period? 52

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

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

If Yes, based on what criteria? Degree of activity on and stabilization of site

7. Permanent Stormwater Controls (Section 4.2.5)

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

Site plan reviews of all new and re-development projects?	☒ Yes	☐ No
Maintenance of stormwater management controls?	☐ Yes	☒ No
Retrofitting of existing BMPs with green infrastructure BMPs?	☐ Yes	☒ No

B What is the threshold for new/redevelopment stormwater plan review? (e.g., all projects, projects disturbing greater than one acre, etc.) sites disturbing greater than 1 acre or a site that is part of a larger development

C. Have you implemented and enforced performance standards for permanent stormwater controls? ☐ Yes ☒ No

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

Flow volumes	☐ Yes	☒ No
Peak discharge rates	☐ Yes	☒ No
Discharge frequency	☐ Yes	☒ No
Flow duration	☐ Yes	☒ No

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

N/A

F. How many development and redevelopment project plans were reviewed for this reporting period? 9

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

H. How many permanent stormwater management practices/facilities were inspected? N/A

I. How many were found to have inadequate maintenance? N/A

J. Of those, how many were notified and remedied within 30 days? (If window is different than 30 days, please specify) N/A

K. How many enforcement actions were taken that address inadequate maintenance? N/A

L. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance? ☒ Yes ☐ No

M. Do all municipal departments and/or staff (as relevant) have access to this tracking system? ☒ Yes ☐ No

N. Has the MS4 developed a program to allow for incentive standards for redeveloped sites? ☐ Yes ☒ No

O. How many maintenance agreements has the MS4 approved during the reporting period? N/A

8. Codes and Ordinances Review and Update (Section 4.2.5.3)

A. Is a completed copy of the EPA Water Quality Scorecard submitted with this report? ☒ Yes ☐ No

B. Include status of implementation of code, ordinance and/or policy revisions associated with permanent stormwater management.

9. Stormwater Management for Municipal Operations (Section 4.2.6)

A. Have stormwater pollution prevention plans (or an equivalent plan) been developed for:

All parks, ball fields and other recreational facilities	☐ Yes	☒ No
All municipal turf grass/landscape management activities	☐ Yes	☒ No
All municipal vehicle fueling, operation and maintenance activities	☐ Yes	☒ No
All municipal maintenance yards	☐ Yes	☒ No
All municipal waste handling and disposal areas	☐ Yes	☒ No

B. Are stormwater inspections conducted at these facilities? ☐ Yes ☒ No

1. If Yes, at what frequency are inspections conducted? N/A

C. Have standard operating procedures or BMPs been developed for all MS4 field activities? (e.g., road repairs, catch basin cleaning, landscape management, etc.) ☐ Yes ☒ No

D. Do you have a prioritization system for storm sewer system and permanent BMP inspections? ☒ Yes ☐ No

E. On average, how frequently are catch basins and other inline treatment systems inspected? Not Frequently

F. On average, how frequently are catch basins and other inline treatment systems cleaned out/maintained? Not Frequently

G. Do municipal employees in all relevant positions and departments receive comprehensive training on stormwater management? ☐ Yes ☒ No

H. If yes, do you also provide regular updates and refreshers? ☐ Yes ☐ No

If so, how frequently and/or under what circumstances? N/A

10. Stormwater Management Program Update (Section 4.4)

A. Describe any changes to the MS4 program during the reporting period including but not limited to:

Changes adding (but not subtracting or replacing) components, controls or other requirements (Section 4.4.2.a). N/A

Changes to replace an ineffective or unfeasible BMP (Section 4.4.2.b). N/A

Information (e.g. additional acreage, outfalls, BMPs) on program area expansion based on annexation or newly urbanized areas. N/A

Changes to the program as required by the division (Section 4.4.3). N/A

11. Evaluating/Measuring Progress

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

Indicator	Began Tracking (year)	Frequency	Number of Locations

Example: E. coli *2003* *Weekly April–September* *20*

B. Provide a summary of data (e.g., water quality information, performance data, modeling) collected in order to evaluate the performance of permanent stormwater controls installed throughout the system. This evaluation may include a comparison of current and past permanent stormwater control practices. N/A

12. ENFORCEMENT (SECTION 4.5)

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

Action	Construction	Permanent Stormwater Controls	Illicit Discharge	Authority?	
Notice of violation	#_____	#_____	#2	☒ Yes	☐ No
Administrative fines	#_____	#_____	#_____	☐ Yes	☐ No
Stop Work Orders	#_____	#_____	#_____	☐ Yes	☐ No
Civil penalties	#_____	#_____	#_____	☐ Yes	☐ No
Criminal actions	#_____	#_____	#_____	☐ Yes	☐ No
Administrative orders	#_____	#_____	#_____	☐ Yes	☐ No
Other - Notice of Alleged Violation	#3	#_____	#1		

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

C. What are the 3 most common types of violations documented during this reporting period? Erosion control measures, illicit discharge

13. PROGRAM RESOURCES (OPTIONAL)

A. What was your annual expenditure to implement the requirements of your MS4 NPDES permit and SWMP this past reporting period? $12,100

B. What is next year's budget for implementing the requirements of your MS4 NPDES permit and SWMP? $120,800

C. Do you have an independent financing mechanism for your stormwater program? ☐ Yes ☒ No

D. If so, what is it/are they (e.g., stormwater fees), and what is the annual revenue derived from this mechanism?

Source: Amount $

Source: Amount $

E. How many full time employees does your municipality devote to the stormwater program (specifically for implementing the stormwater program vs. municipal employees with other primary responsibilities that dovetail with stormwater issues)? 0 (Staff has other responsibilities)

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

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism

G. Please attach a copy of your Organizational Chart

14. CERTIFICATION

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

"I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

MIKE WISSMAN MAYOR
Printed Name and Title

Signature

9/29/16
Date

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

EFO	Street Address	City	Zip Code	Telephone
Chattanooga	540 McCallie Avenue STE 550	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 432-4015
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 R S Gass Boulevard	Nashville	37216	(615) 687-7000

Town of Arlington

MS4 Annual Report

2015 – 2016

List of Impaired Waters Within Our Jurisdictional Area

Impaired Waters within Jurisdictional Area

Loosahatchie River Basin

Waterbody ID	Impacted Waterbody	County	Miles/Acres
TN08010209003_0200	Cypress Creek	Shelby/Fayette	13.67
TN08010209003_1000	Clear Creek	Shelby	2.67
TN08010209004_1000	Loosahatchie River	Shelby/Fayette	10

Obtained from Proposed Final Version 2014 303(d) List, Tennessee Department of Environment and Conservation

Town of Arlington

MS4 Annual Report

2015 – 2016

Public Education, Outreach, Involvement, and Participation Activity Summary

Town of Arlington
MS4 Annual Report - 2015-2016
Public Education, Outreach, Involvement and Participation Activity Summary

Stormwater Management Training

3 new employees attended the TN EPSC Level 1 - Fundamentals of Erosion Prevention and Sediment Control for Construction Sites course and became certified personnel

Community Service Projects

Date	Group	Project	Duration	# of People	Total hours worked
07/07/2015	Bellevue Arlington	Depot Square Community Garden	40 hours	31	1,240
			Total Hours Worked		**1240**

Pamphlet and Informtion Distribution

Understanding What Happens When it Rains pamphlet

125 pamphlets distributed

Stormwater and the Construction Industry pamphlet

17 total pamphlets distributed at pre-construction meetings

TAB Public Service Announcements

Participated in TAB program - In West TN, a total of 12,274 units or $247,546.36.

Hosted table at Arlington in April

Staff hosted a table at Arlington in April, our annual spring festival, where residents could pick up pamphlets and discuss stormwater practices.

Annual Report Public Meeting and Notice

An public meeting was held on September 19, 2016 to review the current annual report and answer any questions. Notice was published in the Commercial Appeal and on the Town of Arlington website on September 9, 2016.

BMP 1A: Public Education and Public Participation
Develop Public Information and Education Plan (PIE)

Distribution of Pamphlets **July 1, 2015 - June 30, 2016**

Understanding What Happens When it Rains

Town Hall

9/2/2015	25

New Resident Welcome bags

9/4/2015	100

Other

Total distributed	**125**

Stormwater and the Construction Industry

Pre-Construction Meetings

Belmont PD	3
First Tennessee	2
Hayes Place PD	3
Laboratory Express	3
Shops at Arlington Village	3
Wilson's Crossing PD, Phase 2	3
Total distributed	**17**

Town of Arlington

MS4 Annual Report

2015 – 2016

Water Quality Scorecard

1 PROTECT NATURAL RESOURCES (INCLUDING TREES) AND OPEN SPACE

Sensitive Natural Lands/Critical Area Protection

QUESTION: Are development policies, regulations, and incentives in place to protect natural resource areas and critical habitat?

GOAL: Protect natural resource areas (e.g., forests, prairies) and critical habitat (e.g., conservation corridors, buffer zones, wildlife preserves) from future development.

WHY: Protection of significant tracts of critical lands and wildlife habitat will aid in protecting and improving water quality by increasing infiltration and groundwater recharge, preventing erosion and contamination of ground water and surface water resources, and protecting sources of drinking water.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Identify and map critical natural resource areas (e.g., steep slopes, wildlife habitat, forests, drinking water source areas).	1	1	floodway + floodplain maps
The local comprehensive plan contains a natural resource protection element with goals calling for preservation of identified critical natural resource areas.	1	1	natural areas (floodway + floodplain)
Identify key natural resource areas for protection in jurisdiction's parks and open space plan.	1		no plan
Assist landowners in identifying sensitive natural areas and laying out developments to avoid such areas.	1	1	drain easements, preservation areas
Local plans establish and enforce areas which are available for development and which lands are a priority for preservation.	1	1	
REMOVE BARRIERS:			
Protection of sensitive natural areas and wildlife habitat qualifies for credit towards local open space dedication and set-aside requirements.	1		minimum standard, no "credit"
ADOPT INCENTIVES:			
Provide financial support to or collaborate with land trusts to acquire critical natural areas.	1		
Establish a dedicated source of funding for open space acquisition and management (e.g., bond proceeds, sales tax).	2		
Adopt a transferable developments rights program to provide an incentive for landowners to preserve sensitive natural lands and wildlife habitat.	1		

4 PAGE TOTAL ◀ CARRY THIS SUBTOTAL TO NEXT PAGE =

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
Land use regulations provide for the creation of cluster and conservation subdivision on the periphery of urban growth areas to encourage preservation of intact blocks of sensitive natural areas.	1	1	cluster=ID - Urban Growth Boundary "Estate Res/Ag." and Rural Reserve
ENACT REGULATIONS			
Adopt regulations to protect steep slope, hillsides, and other sensitive natural lands (e.g., by limiting development on slopes > 30% or requiring larger lot sizes in sensitive areas).	2	2	See Sub. Reqs, p. 35
Adopt wildlife habitat protection regulations aimed at preserving large contiguous blocks of habitat areas.	2		
Create agriculture/natural resource zoning districts (e.g., minimum lot size of 80 acres and larger) to preserve agricultural areas and forests.	2		

3 PAGE TOTAL + 4 SUBTOTAL FROM PREVIOUS PAGE = 7 ▼ CARRY THIS SUBTOTAL TO NEXT PAGE

1.A.2a Protection Of Water Bodies/Aquifers

QUESTION: Are no-development buffer zones and other protective tools in place around wetlands, riparian areas, and floodplains that improve/protect water quality?

GOAL: Protect critical areas such as wetlands, floodplains, lakes, rivers, and estuaries with a mandatory no-development buffer.

WHY: The use of these practices will reduce pollutant loads and hydrologic alterations to water bodies.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE:			
Identify and map critical water resource areas.	1	1	floodplains + floodways
The local comprehensive plan contains a water quality protection element with goals calling for protection of identified water bodies and other water resource areas such as wetlands.	1	1	floodplains, floodways
Identify key critical water resource areas for protection in jurisdiction's parks and open space plan.	1	0	no plan
Cooperate in developing regional approaches to watershed protection and stormwater management.	1	1	MS4, working w/ other MS4's & - also regional detention basins.
REMOVE BARRIERS			
Wetlands and other water bodies and buffer areas qualify for credit against local open space dedication/set-aside regulations.	1	1	qualify for on site open space requirements
ADOPT INCENTIVES:			
Protected water bodies and buffer areas qualify for twice the credit (or more) against open space requirements set by the municipality.	1	0	no.
Restoration of degraded riparian/wetland areas qualifies for additional open space credit within the local municipal system.	1	0	no.
Transfer of density from protected riparian areas/buffers to upland portions of development sites.	1	0	no.
ENACT REGULATIONS:			
Riparian and wetland buffer areas required by local land use regulations · Buffer is at least 50 feet (as measured from the top of bank) = 1 point · Buffer is at least 100 feet (as measured from the top of bank) = 2 points · Buffer is greater than 100 feet (as measured from the top of bank) = 3 points	1 to 3	0	min 30'
Critical water resource areas cannot be counted in calculating allowable density on a site (e.g., on a 200-acre site with 50 acres of wetlands, only 150 acres can be used to calculate density under zone district regulations, and only those 150 acres may be developed).	1	0	no. encourage clustering.

3 PAGE TOTAL + 7 SUBTOTAL FROM PREVIOUS PAGE = 10 ▼ CARRY THIS SUBTOTAL TO NEXT PAGE

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
Development in floodplains is prohibited or must demonstrate no adverse impacts upstream and downstream (See resources below for details on "no adverse impact" approach to floodplain management).	2	2	
Stormwater quality and quantity performance standards exist for development sites (e.g., restrictions on sedimentation levels, pre/post development flows).	1	0	
Local regulations require restoration of degraded riparian/wetland areas on a development site.	1	0	
Compensation for damage to riparian/wetland areas must be on a minimum 2:1 basis on- or off-site.	1	0	
Performance standards exist and are well enforced for stormwater discharges to wetlands that protect the hydrologic regimes and limit pollutant loads.	1	0	

2 PAGE TOTAL + 10 SUBTOTAL FROM PREVIOUS PAGE = 12 ▼ CARRY THIS SUBTOTAL TO NEXT PAGE

1.A.2b

Protection Of Water Bodies/Aquifers

QUESTION: Does the community have protection measures for source water protection areas through land use controls and stewardship activities?

GOAL: Protect source water areas from current or potential sources of contamination.

WHY: These practices will help safeguard community health, reduce the risk of water supply contamination, and potentially reduce water treatment costs.

Implementation Tools and Policies	Pts. Avail	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Local land use plans identify aquifer recharge/source water areas and recommend protective measures.	1	0	
Require that all stormwater inlets carry a notice regarding discharge to receiving waters.	1	0	
Map and publish wellhead and aquifer recharge areas to alert developers to potential restrictions.	1	0	
ADOPT INCENTIVES:			
Identification of drinking water source protection and aquifer recharge areas with a dedicated funding source in place to purchase and protect such areas.	1	0	
Protection of critical water source areas qualifies for additional credit towards local open space requirements.	1	0	
ENACT REGULATIONS.			
Adopt well-head protection regulations/zones to prevent incompatible development and uses.	1	0	
Adopt aquifer protection regulations/zones to prevent incompatible development and uses.	2	0	

PAGE TOTAL 0 + SUBTOTAL FROM PREVIOUS PAGE 12 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 12

1.B Open Space Protection

1.B.1

QUESTION: Does the jurisdiction have adequate open space in both developed and greenfield areas of the community?

GOAL: Create open space networks throughout a community that serve a dual function of providing recreational areas and assisting in the management of stormwater runoff.

WHY: In addition to providing open space throughout a community as an amenity, such a network can provide large areas that contribute little to stormwater loads and can provide large areas for the infiltration and purification of stormwater.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Adopt a community-wide open space and parks plan.	1	0	
The local comprehensive plan contains an open space/parks element that recognizes the role of open space in sustainable stormwater management.	1	1	
REMOVE BARRIERS.			
Green infrastructure practices count towards local open space set aside requirements up to 50% of total.	1	0	
Allow and encourage retrofits of abandoned or underutilized public lands to serve as permanent or temporary open space and green infrastructure sites.	1	0	
ADOPT INCENTIVES			
Additional open space credits are eligible for green stormwater management facilities improved/designed for public recreational purposes.	1	0	
Provide credit against open space impact fees for green roofs.	1	0	
ENACT REGULATIONS:			
Adopt neighborhood policies and ordinances that work to create neighborhood—not development site—open space amenities that are within ¼ to ½ mile walking distance from every residence.	1	0	
Adopt an open space impact fee to purchase passive open space that can assist in stormwater management.	1	0	
Adopt open space dedication and/or set aside requirements based on the demand generated by the development. As a baseline, use the average open space requirements adopted by the National Recreation and Park Assn. (e.g., 10 acres of community and neighborhood parks for every 1,000 persons in a development or fraction thereof).	1	0	

PAGE TOTAL: 1 + SUBTOTAL FROM PREVIOUS PAGE: 12 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE: 13

1.C TREE PROTECTION

1.C.1 QUESTION: Does the local government have a comprehensive public urban forestry program?

GOAL: Protect and maintain trees on public property and rights-of-way and plant additional trees to enhance the urban tree canopy.

WHY: Mature trees provide multiple community benefits, reduce overall stormwater runoff, and improve stormwater quality.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE.			
Survey and inventory existing trees on public lands and street rights-of-way. Document the characteristics and location of street trees and urban tree canopy to inform public tree planting, adoption, and maintenance programs.	1	0	
Select tree species based on known performance for managing stormwater runoff. Publish list and make widely available for homeowners/others that plant street trees.	1	0	
Conduct education and outreach about tree protection, proper maintenance, and replanting opportunities through printed materials, workshops, events, and signage.	1	0	
Adopt a policy to protect existing trees on local government development sites (e.g., municipal parking lots, municipal buildings).	1	0	
Maintain an active tree maintenance program for public trees, including pest control, pruning, watering, and similar measures.	1	0	
REMOVE BARRIERS.			
Acknowledge trees as part of community infrastructure and develop a coordinated design for locating public utilities to provide enough space for mature tree canopy and root development.	1	1	
ADOPT INCENTIVES.			
Provide free or reduced-price trees to homeowners to be used as street trees.	1	0	
ENACT REGULATIONS.			
Require any public trees removed or damaged during construction associated with private development to be replaced on- or off-site with an equivalent amount of tree caliper (e.g., remove a 24-inch diameter tree/replace with 6 four-inch diameter trees).	1	0	
Adopt construction protection rules for all public trees (e.g., fencing, no storage of hazardous materials, avoid cutting into root zones).	1	0	

PAGE TOTAL 1 + SUBTOTAL FROM PREVIOUS PAGE 13 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 14

QUESTION: Has the community taken steps to protect trees on private property?

GOAL: Preserve trees on private property and require replacement when trees are removed or damaged during development.

WHY: Mature trees provide multiple environmental, economic, and community benefits, including improved water and air quality, reduced heat island effects, lowered energy costs, and improved community aesthetics.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Community plans specifically include tree preservation and replacement as community goals.	1	1	Zoning Ordinance
Conduct educational sessions for builders and developers regarding appropriate tree protection techniques and/or publish a technical tree protection manual.	1	0	
Follow maintenance and inspection timelines and meet canopy goals and milestones by ensuring old trees survive, replacing dead or diseased trees, and planting new trees.	1	0	
REMOVE BARRIERS.			
Set up maintenance and inspection agreements for private properties meeting stormwater requirements or receiving stormwater fee credit for trees.	1	0	
Set up long-term maintenance and inspection schedules for trees on public lands.	1	0	
ADOPT INCENTIVES:			
Support local non-profits that plant trees and provide educational services.	1	0	
Provide financial incentives for tree purchases and planting.	1	0	
A tree fund has been established to receive in-lieu payments when trees must be removed from a development site to accommodate permitted projects.	1	0	
Trees of a specified minimum size count towards a percentage of stormwater management requirements (e.g., partial credit given for each mature tree exceeding a specified height or canopy size).	1	0	
Trees over a specified minimum size (e.g., 3-inch caliper) protected during development are credited towards landscaping requirements. · meeting the established landscape requirement = 1 point · exceeding the established landscape requirement = 2 points	1 to 2	0	

PAGE TOTAL 1 + SUBTOTAL FROM PREVIOUS PAGE 14 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 15

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ENACT REGULATIONS			
Require permits before removing trees on proposed development or redevelopment sites. Provide fines and/or stop-work authority for permit violations.	1	1	Land disturbance permit
Set minimum tree preservation standards for new development sites.	1	1	tree density units
Require site plans or stormwater plans to include tree preservation.	1	0	
Require/allow tree replacement off-site for infill sites.	1	0	

2 PAGE TOTAL + SUBTOTAL FROM PREVIOUS PAGE 15 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 17

1.C.3

QUESTION: Are street trees encouraged or required as part of road and public right-of-way capital improvement projects?

GOAL: Leverage existing capital funds to plant more street trees and add multiple benefits to the public right-of-way.

WHY: Street trees can help manage and reduce stormwater runoff while providing multiple public and environmental benefits.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Local comprehensive and transportation plans support the planting of street trees by all private and public development projects.	1	0	
Capital improvement plans include tree planning as part of project budgets.	1	0	
ADOPT INCENTIVES			
Offer incentives, such as reduced setbacks or increased building densities, in exchange for additional tree preservation beyond ordinance requirements.	1	0	
ENACT REGULATIONS			
All private and public developments are required to plant street trees in accordance with size, spacing, and other local government requirements.	1	1	private developments / design guidelines
New street designs and redesigns of existing streets take into account space for tree development and require necessary surface area and volume of soil dependent on type of tree species selected (this includes lateral root growth as well as direct downward growth to accommodate mature tree canopy and roots without adversely affecting other utilities).	1	0	
Street specifications require permeable paving for sidewalks and other surfaces to reduce stormwater runoff and allow street trees to benefit from the available water.	1	0	

1 PAGE TOTAL + 17 SUBTOTAL FROM PREVIOUS PAGE = 18 (TOTAL POINTS AVAILABLE: 82)

▼ **Total score for SECTION 1: PROTECT NATURAL RESOURCES (INCLUDING TREES) AND OPEN SPACE**

This section has been reviewed and scored by Heather Sparkes

Department name Planning Signee HRSparkes

2 PROMOTE EFFICIENT, COMPACT DEVELOPMENT PATTERNS AND INFILL

2.A SUPPORT INFILL AND REDEVELOPMENT

2.A.1

QUESTION: Are policy incentives in place to direct development to previously developed areas?

GOAL: Municipalities implement a range of policies and tools to direct development to specific areas.

WHY: Municipalities can realize a significant reduction in regional runoff if they take advantage of underused properties, such as infill, brownfield, or greyfield sites. Redeveloping already degraded sites such as abandoned shopping centers or underutilized parking lots rather than paving greenfield sites for new development can dramatically reduce total impervious area while allowing communities to experience the benefits and opportunities associated with growth.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Local plans identify potential brownfield and greyfield sites, and support their redevelopment.	1	1	Depot Square Master Plan
Capital improvement plans include infrastructure improvements (water, sewer, road, sidewalk, etc. upgrades) for identified brownfield and greyfield sites.	1	0	
Educate lending and financial institutions about benefits and local priorities of directing development to existing areas.	1	0	
Conduct outreach to the community to ensure support for local forms and patterns of development.	1	1	PC Training
REMOVE BARRIERS.			
Establish a brownfields program to remove uncertainty regarding cleanup and liability issues.	1	0	
ADOPT INCENTIVES.			
Provide incentives such as density bonuses and accelerated permitting for brownfield and greyfield sites.	1	1	no setbacks in B3 zoning
Adopt funding mechanisms for remediating/redeveloping brownfield and greyfield sites.	1	0	
Streamline permitting procedures to facilitate infill and brownfield redevelopment plan review.	1	0	
Establish tax increment financing (TIF) districts to encourage redevelopment.	1	0	
ENACT REGULATIONS.			
In local codes, ordinances, and policies, the municipality differentiates between greenfield and infill development.	1	0	
		3 PAGE TOTAL	◀ CARRY THIS SUBTOTAL TO NEXT PAGE = 3

2.B.1

QUESTION: Does the municipality direct growth to areas with existing infrastructure, such as sewer, water, and roads?

GOAL: Adopt policies, incentives, and regulations to direct new development to areas that have infrastructure, such as water and sewer. However, in situations where development is in areas with no sewer infrastructure, permitting alternative treatment options that can allow for higher density development or clustering of houses will reduce the overall water quality impact.

WHY: Sewer and water authorities can play a major role in directing a region's growth by determining when and where new infrastructure investment will occur. Well-drafted facility planning areas can direct growth by providing sewer service in areas least likely to impact water resources.

Implementation Tools and Policies	Pts Avail.	Pts Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE.			
Local plans recommend/establish urban growth areas and urban growth boundaries. Development is encouraged within urban growth boundaries and discouraged outside of them.	1	1	
Analyze which areas within the jurisdiction are appropriate for higher density development based on existing infrastructure capacity, cost of providing new services, and access.	2	0	
Capital improvement plans for public infrastructure (roads, water, sewer, etc.) target funding inside urban growth boundary.	2	2	
Local sewer/water authority capital improvement plans follow development policies established in local comprehensive plans and target areas with existing development/infrastructure.	1	0	
REMOVE BARRIERS:			
Development standards addressing landscaping, buffering, parking, and open space are tailored for infill areas to avoid creating unnecessary hurdles to development (e.g., imposing suburban parking requirements in high-density infill areas).	2	2	B3 standards, parking based on use, on-street + shared parking
Remove prohibitions on accessory dwelling units in infill areas to increase density of development.	2	0	
Off-site, regional water retention/detention encouraged/allowed to avoid costly on-site retention in densely developed infill areas and to provide benefit to priority retrofit sites, such as schools.	2	2	Regional detention encouraged rather than per site
Package plants and other wastewater treatment trains are encouraged for development in limited circumstance areas where growth is appropriate but sewers/treatment capacity does not exist.	1	0	

PAGE TOTAL 7 + SUBTOTAL FROM PREVIOUS PAGE 3 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 10

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
Technical information and analysis on the effectiveness of various treatment systems are readily available to developers. Local governments have determined which systems work best for their soil conditions and topography and have made this information available to the development community.	1	0	
Allow a wide variety of housing types and sizes within infill areas and reduced minimum lot sizes.	1	1	Based on density - PD and.
ADOPT INCENTIVES.			
Increase development densities and allowable height in infill areas.	1	0	
Reduce impact fees for infill development based on less demand for new infrastructure.	1	0	
Create development incentives for green roofs (e.g., increased floor area ratio [FAR] bonus, additional building height).	1	0	
Include provision in stormwater management requirement that reduces on-site management requirements for projects that decrease total imperviousness on previously developed sites.	1	0	
ENACT REGULATIONS			
Zoning and land development regulations implement urban service areas/ urban growth boundary policies by restricting development in outlying areas.	1	1	Urban growth boundary, Estate Zoning S. of I-40 (no sewer)
Adopt adequate public facility and concurrency ordinances that require adequate public infrastructure to be available when development comes on line (e.g., water, sewer, roads).	1	1	
Adopt large-lot/agricultural zoning (e.g., 1 unit/160 acres) on fringe of city to restrict inappropriate greenfield development.	1	1	Urban South Plan=
Enact transitional compatibility standards to ensure that new denser infill development is compatible with existing neighborhoods/adjacent development.	1	1	

5 PAGE TOTAL + 10 SUBTOTAL FROM PREVIOUS PAGE = 15 ▼ CARRY THIS SUBTOTAL TO NEXT PAGE

2.C ENCOURAGE MIXED-USE DEVELOPMENTS

2.C.1

QUESTION: Are mixed-use and transit-oriented developments allowed or encouraged?

GOAL: Revise codes and ordinances to allow for the "by right" building of mixed-use and transit-oriented developments.

WHY: Mixed-use developments allow for the co-locating of land uses, which decreases impervious surfaces associated with parking and decreases vehicle miles traveled—resulting in a reduction of hydrocarbons left on roadways and reduced air deposition.

Transit-oriented development (TOD) produces water quality benefits by reducing: (1) land consumption due to smaller site footprints; (2) parking spaces and the impervious cover associated with them; and (3) average vehicle miles traveled, which, in turn, reduces deposition of air pollution into water bodies.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE:			
Comprehensive plans identify appropriate areas for higher-density mixed-use developments (e.g., at transit stops) and recommend policies to encourage their development.	1	1	
Local capital improvement plans and funding are targeted to areas appropriate for mixed-use development.	2	2	Depot Square, ie.
REMOVE BARRIERS			
Zoning ordinances can create by-right mixed-use and transit-oriented development districts or overlays through amendments.	1	1	Planned Development Ord. - Traditional Nhood Overlay
Initiate map amendments to designate mixed-use and transit-oriented development areas, eliminating the need for developers to secure zoning amendments.	1	0	
ADOPT INCENTIVES:			
Parking requirements are reduced to reflect decreased automobile use.	1	0	
Credit given for adjacent on-street parking, which can count for local parking requirements.	1	1	
Shared parking and alternative parking arrangements encouraged.	1	1	
Mixed-use districts/areas feature increased densities and height.	1	1	
Accessory parking structures are not counted against maximum floor area ratio (FAR) on a site.	1	0	

PAGE TOTAL 7 + SUBTOTAL FROM PREVIOUS PAGE 15 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 22

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ENACT REGULATIONS			
Zoning code requires a minimum mix of uses and minimum density in designated mixed-use and transit-oriented development areas.	1	0	
Auto-oriented uses and drive-throughs are restricted or prohibited in mixed-use and transit-oriented development areas.	1	0	

0 PAGE TOTAL

SUBTOTAL FROM PREVIOUS PAGE + 22

▼ **Total score for SECTION 2: PROMOTE EFFICIENT, COMPACT DEVELOPMENT PATTERNS AND INFILL**

= 22 (TOTAL POINTS AVAILABLE: 45)

This section has been reviewed and scored by Heather Sparkes

Department name Planning Signee HPSparkes

3 Design Complete, Smart Streets That Reduce Overall Imperviousness

3.A Street Design

3.A.1

QUESTION: Do local street design standards and engineering practices encourage streets to be no wider than necessary to move traffic effectively?

Do street designs vary according to:

- **street type** (arterial streets, collector streets, neighborhood streets) and
- **urban context** (urban core, transit station area, suburban center, general suburban, rural)?

Do policies allow narrow neighborhood streets designed to slow traffic and create safer conditions for pedestrians and bicyclists?

GOAL: Appropriate street widths allow narrower lanes for certain street types, thereby reducing overall imperviousness.

WHY: The width of travel lanes, parking lanes and sidewalks should be tailored to the urban setting. Where appropriate, narrowing travel lane width to 10-11 feet, rather than the standard 12-13 feet, can significantly reduce the total amount of impervious surfaces. Such streets can also substantially improve conditions for walking, biking, and using transit, which reduces automobile use and overall demand for parking spaces.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Comprehensive plan/transportation plan emphasizes alternative modes of transportation (walking, biking, and transit) to reduce vehicle miles traveled and width and prominence of roads/streets.	1	1	
Comprehensive/transportation plan calls for distributing traffic across several parallel streets, reducing the need for high capacity streets with wide rights-of-way.	1	1	
Comprehensive/transportation planning process brings emergency response and other local government departments (e.g., public works, utilities) to the table early in the process to discuss street design.	1	0	
Adopt formal bicycle/pedestrian master plan.	1	1	Greenway Trail Plan / MPO Plan
Create "safe routes to school" programs or other pedestrian/bike safety initiatives.	1	0	
Make consistent improvements to walking/biking conditions or develop a formal bicycle/pedestrian master plan.	1	1	
REMOVE BARRIERS.			
Comprehensive plan endorses context-sensitive street design with narrower streets in appropriate locations.	1	1	Depot Sq.
Improve pedestrian crossing at intersections to encourage walking.	1	1	
Consolidate utilities in street right-of-way to improve sidewalk design and function.	1	0	
		6 PAGE TOTAL	◀ CARRY THIS SUBTOTAL TO NEXT PAGE = 6

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
Negotiate with state department of transportation or county transportation department to allow different design standards for regional roads passing through downtowns or other key areas.	1	1	Depart Reg
Promote street standards for fire safety that include attributes of narrow streets (20 feet widths) while identifying factors relevant to local government departments involved with streets such as public works, engineering, and utilities.	2	0	
Take formal control of state or county roads within city boundaries to ensure power over design and operations.	2	0	
ADOPT INCENTIVES			
Developments that provide comprehensive pedestrian/bicycle circulation systems allowed reducing number of vehicle parking spaces. (See parking section below for greater detail.)	1	0	
Developments with approved comprehensive mobility/transportation plans allowed building narrower, less costly streets and alleys.	1	0	
ENACT REGULATIONS			
Revamp local government technical street specifications to allow context-sensitive, innovative street design with narrower travel lanes, without curb and gutter, etc., in appropriate circumstances (See Institute of Transportation Engineers Recommended Practice document below).	2	0	
Emergency response professionals and other local government departments involved with streets (e.g. public works, engineering, utilities) have endorsed or adopted design standards for narrower neighborhood streets.	1	0	
Development review process involves emergency response early on to reach consensus on appropriate project street design and access.	1	1	
Development review process requires submittal of project pedestrian/bicycle circulation plans with safe street routes and other pedestrian/bicycle-friendly features in addition to traffic circulation plans for larger developments.	1	0	
Apply formal connectivity index[2] or other measures to ensure adequate internal street and pedestrian/bicycle connections.	2	2	Sub. Reg
Zoning/subdivision regulations require minimum number of connections between new project and surrounding developments and neighborhoods.	2	2	
		6 PAGE TOTAL	SUBTOTAL FROM PREVIOUS PAGE + 6 = 12 ▼ CARRY THIS SUBTOTAL TO NEXT PAGE

[2] Connectivity index refers to the directness of links and the density of connections in path or road network. A well-connected road or path network has many short links, numerous intersections, and minimal dead-ends (cul-de-sacs). As connectivity increases, travel distances decrease and route options increase, allowing more direct travel between destinations, and creating a more *Accessible* and *Resilient* system. Source: Online Travel Demand Management Encyclopedia, *http://www.vtpi.org/tdm/tdm116.htm*

3.A.2			
	QUESTION: Are shared driveways, reduced driveway widths, two-track driveways, and rear garages and alleys encouraged for all single-family developments? GOAL: Encourage alternative forms and decreased dimensions of residential driveways and parking areas. WHY: Off-street parking and driveways contribute significantly to the impervious areas on a residential lot. Reducing such dimensions can minimize the amount of stormwater runoff from a site.		
	REMOVE BARRIERS		
	Allow developments that utilize shared driveways and rear-loaded garages to permit overnight parking in driveways and on-street.	1	0
	Development code prohibits homeowner covenants forbidding overnight parking in driveways, on-street overnight parking, and shared driveways.	1	0
	ADOPT INCENTIVES		
	Allow developments with narrow driveways and rear-loaded garages to reduce number of parking spaces for guests.	1	0
	Zoning/subdivision regulations require minimum number of connections between new project and surrounding developments and neighborhoods.	1	1
	ENACT REGULATIONS		
	Shared driveways are permitted or required for single-family residential developments.	1	0
	Minimum widths for single-family driveways reduced to 9 feet.	1	0
	Two-track driveways are allowed by technical street/subdivision specifications.	1	0
	Single-family residential developments encouraged/required to be designed with minimum percentage of alley-accessible, rear-loading garages. · Alleys/garages encouraged = 1 points · Alleys/garages required = 2 points	1 to 2	0
		PAGE TOTAL 1	+ SUBTOTAL FROM PREVIOUS PAGE 12 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 13

Green Infrastructure Elements and Street Design

QUESTION: Are major street projects required to integrate green infrastructure practices as a standard part of construction, maintenance, and improvement plans?

GOAL: Formally integrate green infrastructure into standard roadway construction and retrofit practice.

WHY: Consistent projects to improve or repair streets provide opportunities to include green infrastructure retrofits as part of larger project budget, design, and construction.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Comprehensive/transportation plans promote green infrastructure practices in street design.	1	0	
Street project cost estimates include green infrastructure designs and assess cost savings from reduced hard infrastructure.	1	0	
REMOVE BARRIERS			
Technical street specifications allow/require integration of green infrastructure elements into street project construction.	1	0	
Allow street-side swales to replace conventional curb and gutter for managing stormwater and for separating sidewalks from street traffic in appropriate circumstances.	1	0	
ADOPT INCENTIVES			
Undertake consistent effort to secure state and federal funds (e.g., transportation enhancements) to pay for green infrastructure elements.	1	0	
Streets with green infrastructure count towards stormwater requirements.	1	0	
ENACT REGULATIONS:			
Adopt green infrastructure retrofit standards for major street projects.	1	0	
Adopt technical specifications and design templates for green infrastructure in private and public rights-of-way.	1	0	
All local road projects required to allocate a minimum amount of the total project cost to green infrastructure elements.	1	0	

PAGE TOTAL 0 + SUBTOTAL FROM PREVIOUS PAGE 13 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 13

QUESTION: Do regulations and policies promote use of pervious materials for all paving areas, including alleys, streets, sidewalks, crosswalks, driveways, and parking lots?

GOAL: Build and retrofit these surfaces with pervious materials to reduce stormwater runoff and its negative impacts.

NOTE: While eliminating sidewalks or placing sidewalks on only one side of the road can reduce impervious cover, this strategy is typically most appropriate for rural areas. However, other effective strategies can achieve the same runoff reductions that will not limit residents' options for recreation and transportation.

WHY: Streets, sidewalks, and other hard surfaces contribute a large portion to a municipality's total imperviousness. Making these impervious surfaces more permeable protects water quality, reduces flooding, and can recharge groundwater.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Sponsor/approve pilot programs to determine appropriate pervious materials for different paving areas (e.g., permeable concrete for sidewalks, permeable pavers for driveways), as well as process for installation and maintenance.	1	0	
Pilot project results incorporated into standard practice for all new paved areas and retrofits of existing paved surfaces.	1	0	
Adopt policy to replace impervious materials with pervious materials where practical.	1	0	
REMOVE BARRIERS:			
Technical street specifications allow pervious paving materials in appropriate circumstances (e.g., not allowed over aquifer recharge areas).	1	0	
ADOPT INCENTIVES:			
Create formal program offering incentives (e.g., cost sharing, reduction in street widths/parking requirements, assistance with maintenance) to property owners who utilize pervious pavement elements.	1	0	
ENACT REGULATIONS:			
Adopt requirement that some percentage of parking lots, alleys, or roads in a development utilize pervious materials.	1	1	above min required spaces
Development approvals that allow/require use of pervious materials include requirements for continuing maintenance/cleaning of pervious surfaces.	1	0	

PAGE TOTAL: 1

SUBTOTAL FROM PREVIOUS PAGE: + 13

▼ **Total score for SECTION 3: DESIGN COMPLETE, SMART STREETS THAT REDUCE OVERALL IMPERVIOUSNESS**: = 14 (TOTAL POINTS AVAILABLE: 50)

This section has been reviewed and scored by Heather Sparkes

Department name Planning Signee HPSparkes

4 Encourage Efficient Parking

4.A Reduced Parking Requirements

4.A.1

QUESTION: Does your local government provide flexibility regarding alternative parking requirements (e.g., shared parking, off-site parking) and discourage over-parking of developments? Do parking requirements vary by zone to reflect places where more trips are on foot or by transit?

GOAL: Match parking requirements to the level of demand and allow flexible arrangements to meet parking standards.

WHY: Inflexible parking requirements that do not allow for alternative approaches, as well as standards that require too much parking for specific uses increase the amount of impervious surface in a development. Over-parking a development also encourages greater vehicle use and detracts from the overall pedestrian environment.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
The comprehensive plan recognizes the advantages to reduced parking requirements generally and specifically for mixed-use and transit-oriented developments.	1	1	
The comprehensive plan recommends alternative, flexible approaches to meeting parking demands (e.g., shared parking, counting on-street spaces towards site parking requirements).	1	1	
Comprehensive/bicycle plans recommend provision of bicycle parking spaces/storage lockers and concomitant reduction in vehicle parking space requirements.	1	0	
REMOVE BARRIERS			
Allow flexibility in meeting parking space requirements through shared parking, off-site parking, and similar approaches.	1	1	
Permit businesses with different peak demand periods to share their required parking spaces.	1	1	
ADOPT INCENTIVES			
Permit reduction in vehicle parking spaces through the provision of a minimum number of bicycle parking spaces.	1	0	
Allow by-right reduction in required parking spaces (e.g., 25%) in mixed-use and transit-oriented developments and districts.	1	0	
Permit developers to undertake parking studies to establish that specific developments (e.g., senior housing, affordable housing) require fewer parking spaces than typical projects.	1	1	
		5 PAGE TOTAL	◀ CARRY THIS SUBTOTAL TO NEXT PAGE = 5

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
Create parking districts to finance/construct centralized parking lots/ structures as shared parking facilities to reduce on-site parking.	1	0	
ENACT REGULATIONS			
Revise parking regulations to reduce minimums below standard ITE (Institute of Transportation Engineers) requirements based on analysis of local developments and actual parking demand/experience.	2	0	
Charge developers for every space beyond parking minimums to offset environmental impacts.	1	0	
Enact parking standards that allow credit for adjacent on-street parking.	1	1	
Create zones with reduced parking requirements (e.g., transit overlay districts, mixed-use activity centers, multi-modal districts).	1	1	
Waive all parking minimums in downtown and other locations that are pedestrian-oriented and/or have good transit access.	1	1	adjacent to original Depot
Adopt parking standards that reduce requirements based on sliding scale tied to degree of walkability/transit access locations (20% reduction in areas well served by bus, 30% reduction in areas served by rail stations).	1	0	
Require shared parking agreements where appropriate complementary uses exist.	1	0	
Adopt maximum parking caps (e.g., 125% above minimum) for multi-family and commercial developments.	2	2	
Reduce minimum parking space size based on analysis of average vehicle size in jurisdiction.	1	0	
		5 PAGE TOTAL	SUBTOTAL FROM PREVIOUS PAGE + 5 ▼ CARRY THIS SUBTOTAL TO NEXT PAGE = 10

4.B TRANSPORTATION DEMAND MANAGEMENT ALTERNATIVES

4.B.1

QUESTION: Can developers use alternative measures such as transportation demand management or in-lieu payments to reduce required parking?

GOAL: Provide flexibility to reduce parking in exchange for specific actions that reduce parking demands on site.

WHY: Incentives such as transit passes, vanpool arrangements, flexible work schedules, market-priced facilities, and separate leasing for spaces in apartments and condominiums have quantifiable impacts on parking demand. Incorporating them into parking requirements creates the opportunity to meet demand with less impervious cover.

Implementation Tools and Policies	Pts Avail	Pts Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Comprehensive/transportation plans recognize transportation demand management as an approach to reducing vehicle miles traveled and parking requirements.	1	0	
REMOVE BARRIERS:			
Rather than include parking spaces with an apartment lease, allow tenants to opt-out by treating parking as a separate optional lease agreement.	1	0	
ADOPT INCENTIVES:			
Allow businesses that offer employee transit passes, provide vans for employee commuting, allow flexible working arrangements, or charge market rates for parking to 1) provide fewer parking spaces or 2) pay less into a parking district fund for required parking spaces.	2	0	
Allow developers to make in-lieu fee payments for parking. Fees utilized by local government/parking authority to provide off-site parking lots/structures.	1	0	
Provide mechanisms for car sharing in transit-oriented development. Where done, area parking requirements are reduced.	1	0	
ENACT REGULATIONS			
Create a parking district and allow/require businesses to support public garages rather than provide their own on-site parking.	1	0	
Require large developments to adopt transportation demand management techniques to lower vehicle use and parking demand.	1	0	

PAGE TOTAL 0 + SUBTOTAL FROM PREVIOUS PAGE 10 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 10

4.C MINIMIZE STORMWATER FROM PARKING LOTS

4.C.1

QUESTION: Are there requirements for landscaping designed to minimize stormwater in parking lots?

GOAL: Require substantial landscaping to help reduce runoff.

WHY: Parking lots generate a large amount of impervious cover. Requiring landscaping reduces the environmental impact of parking and can provide additional community benefits by providing shade and, if appropriately placed, creating natural barriers between pedestrians and cars.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Comprehensive plan calls for landscaping in parking lots to help reduce stormwater runoff.	1	0	
REMOVE BARRIERS.			
Allow alternative or innovative landscaping solutions that provide stormwater management functions to count towards perimeter or other landscaping requirements.	1	1	
ADOPT INCENTIVES.			
Parking lot landscaping and green roofs on parking structures credited towards meeting local stormwater management requirements.	1	0	
Give additional landscaping credit for preservation of large, mature trees within parking lots.	1	0	
Do not count parking structures with green roofs against the allowable floor area ratio of a site.	1	0	
ENACT REGULATIONS.			
Adopt parking lot landscape regulations that require provision of trees, minimum percent of parking lot interior area to be landscaped (e.g., 10%), and minimum sized landscaping areas (e.g., minimum of 25 square feet for island planting areas).	1	1	
In parking lot landscaping regulations, specify the types and sizes of shrubs and trees most appropriate for controlling/reducing stormwater runoff.	1	1	
Adopt standards requiring a minimum area of the parking lot to drain into landscaped areas.	1	0	
Require the management of runoff from parking lots through green infrastructure practices, including trees, vegetated islands, swales, rain gardens, or other approaches.	1	0	

PAGE TOTAL 3 + SUBTOTAL FROM PREVIOUS PAGE 10 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 13

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
Enact specific alternative landscaping and parking regulations to support infill development (parking requirements, parking lot landscaping options that focus on perimeter landscaping to encourage smaller lots, etc.).	2	0	
Require parking structures to incorporate green roofs to reduce stormwater runoff.	1	0	
Reduce drive aisle widths in parking lots to decrease the amount of pervious surface. For multi-family developments, drive aisles can be shared. In commercial developments, typical drive aisles can be reduced 5–10%.	1	0	

0 PAGE TOTAL + 13 SUBTOTAL FROM PREVIOUS PAGE = 13 ▼ **Total score for SECTION 4: ENCOURAGE EFFICIENT PARKING** (TOTAL POINTS AVAILABLE: 41)

This section has been reviewed and scored by Heather Sparkes

Department name Planning Signee HP Sparkes

5 Adopt Green Infrastructure Stormwater Management Provisions

5.A Green Infrastructure Practices

5.A.1

QUESTION: Are green infrastructure practices encouraged as legal and preferred for managing stormwater runoff?

GOAL: Make all types of green infrastructure allowed and legal and remove all impediments to using green infrastructure (including for stormwater requirements), such as limits on infiltration in rights-of-way, permit challenges for green roofs, safety issues with permeable pavements, restrictions on the use of cisterns and rain barrels, and other such unnecessary barriers.

WHY: Green infrastructure approaches are more effective and cost efficient than conventional stormwater management practices in many instances, and provide other substantial community benefits.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Inform the public, through education and outreach programs, that green infrastructure practices can manage stormwater runoff on their property.	1	0	
Create a green infrastructure workshop or training program for internal and external reviewers to ensure that the stakeholders who use this tool will have the ability to understand and use it effectively.	1	0	
REMOVE BARRIERS			
Development and other codes encourage and allow property owners to adopt home-based green infrastructure practices, such as rain gardens, rain barrels, and other rainwater harvesting practices.	1	0	
Review and change, where necessary, building codes or other local regulations to ensure that all local government departments/agencies have coordinated with one another to ensure that green infrastructure implementation is legal, e.g. remove restrictions on downspout disconnection.	1	0	
ADOPT INCENTIVES			
Credit green infrastructure practices towards required controls for stormwater runoff.	1	0	
Establish a "Green Tape" expedited review program for applications that include green infrastructure practices.	1	0	
Reduce stormwater utility rates based on the use of green infrastructure practices.	1	0	
		0 PAGE TOTAL	◄ CARRY THIS SUBTOTAL TO NEXT PAGE = 0

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ENACT REGULATIONS			
Zoning and subdivision regulations specifically permit green infrastructure facilities, including but not limited to: (1 point for each technique to a maximum of 4 points) · Green roofs; · Infiltration approaches, such as rain gardens, curb extensions, planter gardens, permeable and porous pavements, and other designs where the intent is to capture and manage stormwater using soils and plants; · Water harvesting devices, such as rain barrels and cisterns; and · Downspout disconnection.	1 to 4	0	
Developers are required to meet stormwater requirements using green infrastructure practices where site conditions allow. Developers must provide documentation for sites that do not allow on-site infiltration, reuse, or evapotranspiration to meet locally determined performance stormwater management standards.	1 to 2	0	

PAGE TOTAL 0 + SUBTOTAL FROM PREVIOUS PAGE 0 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 0

5.A.2

QUESTION: Do stormwater management plan reviews take place early in the development review process?

GOAL: Incorporate stormwater plan comments and review into the early stages of development review/site plan review and approval, preferably at pre-application meetings with developers.

WHY: Pre-site plan review is an effective tool for discussing with developers alternative approaches for meeting stormwater requirements. This will incorporate green infrastructure techniques into new projects at early design stages, well before construction begins.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE.			
Encourage/require a pre-site plan meeting with developers to discuss stormwater management and green infrastructure approaches. · Voluntary = 1 point · Mandatory = 2 points	1 to 2		
Include landscape architects in design and review of stormwater management plans.	1	0	
ADOPT INCENTIVES.			
Provide accelerated review of projects where developer attended a pre-application meeting.	1	0	
ENACT REGULATIONS.			
Preliminary stormwater plan review occurs contemporaneously with preliminary site plan review and before any development approvals.	1	0	
Development applications must include preliminary/conceptual stormwater management plans that incorporate green infrastructure elements and describe how stormwater management standards will be met.	1	0	

PAGE TOTAL 1 + SUBTOTAL FROM PREVIOUS PAGE 0 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 1

5.A.3

QUESTION: Do local building and plumbing codes allow harvested rainwater for exterior uses, such as irrigation, and non-potable interior uses, such as toilet flushing?

GOAL: Ensure that the municipality allows and encourages stormwater reuse for non-potable uses.

WHY: Stormwater reuse is important for dense, urban areas with limited spaces for vegetated green infrastructure practices.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Local government provides information brochures/manual for homeowners describing acceptable rainwater harvesting techniques.	1		
REMOVE BARRIERS			
Local development, building, and plumbing codes updated to allow reuse of stormwater for non-potable purposes.	1		
ADOPT INCENTIVES			
Reduce stormwater management facility requirements for developments employing comprehensive rainwater harvesting.	1		
Reduce stormwater utility rates based on the use of harvest and reuse techniques.	1		
ENACT REGULATIONS			
Require developments to adopt rainwater harvesting techniques as elements of stormwater management plans.	1		

PAGE TOTAL + SUBTOTAL FROM PREVIOUS PAGE 1 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE

Unknown - Shelby County

5.A.4		
	QUESTION:	Are provisions available to meet stormwater requirements in other ways, such as off-site management within the same sewershed or "payment in lieu" of programs, to the extent that on-site alternatives are not technically feasible?
	GOAL:	Allow off-site management of runoff while still holding developers responsible for meeting stormwater management goals.
	WHY:	In some cases, it is impracticable or infeasible to treat all or even some of the stormwater runoff on site. In such instances, alternative means should be provided through contribution to off-site mitigation projects or off-site stormwater management facilities (preferably green infrastructure facilities).

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A
For infill and redevelopment areas, off-site green stormwater management plans should be developed in cooperation between local government and landowners/developers. Allowing off-site management of stormwater runoff requires sewershed designation within the local government to ensure that true mitigation is possible and realize the equal stormwater management and water quality benefits through off-site management.	2	0
Retrofit projects that will utilize green infrastructure stormwater management techniques should be identified and prioritized within the sewershed.	1	0
Amend stormwater management regulations and development codes as necessary to allow off-site stormwater management, especially for infill and redevelopment areas.	1	0
Establish system that allows/requires payment-in-lieu fees for off-site stormwater management facilities. Fees should be set sufficiently high as to cover the true cost of off-site management. Consider limitations on amount of off-site management allowed (more for infill areas, less for greenfield sites).	1	0

PAGE TOTAL 0 + SUBTOTAL FROM PREVIOUS PAGE 1 = ▼ CARRY THIS SUBTOTAL TO NEXT PAGE 1

5.B.1

QUESTION: Does your stormwater ordinance include monitoring, tracking, and maintenance requirements for stormwater management practices?

GOAL: Incorporate monitoring, tracking, and maintenance requirements for stormwater management practices into your municipal stormwater ordinance.

WHY: These measures will help ensure that the successful tracking and monitoring of green infrastructure practices remain in proper working condition to provide the performance required by the stormwater ordinance.

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
ADOPT PLANS/EDUCATE			
Develop a system to monitor and track stormwater management practices deployed at greenfield and redevelopment sites. Tracking of management practices should begin during the plan review and approval process with a database or geographic information system (GIS). The database should include both public and private projects.	1	0	
Provide model checklist for maintenance protocols for ease of inspection, tracking, and enforcement.	1	0	
Sponsor demonstration projects for green infrastructure management best practices.	1	0	
REMOVE BARRIERS.			
Ensure that proper local agencies have authority to enforce maintenance requirements.	1	1	
ADOPT INCENTIVES.			
Create self-inspection maintenance certification program that allows developers/landowners to train/retain private inspectors to certify compliance with stormwater management plans and long-term maintenance.	1	0	
ENACT REGULATIONS:			
Require long-term maintenance agreements that allow for public inspections of the management practices and account for transfer of responsibility in leases and/or deed transfers.	1	1	
Conduct inspections every 3 to 5 years, prioritizing properties that pose the highest risk to water quality, inspecting at least 20% of approved facilities annually.	1	0	
Develop a plan approval and post-construction verification process to ensure compliance with stormwater standards, including enforceable procedures for bringing noncompliant projects into compliance.	1	1	

PAGE TOTAL	+ SUBTOTAL FROM PREVIOUS PAGE	▼ CARRY THIS SUBTOTAL TO NEXT PAGE
3	+ 1	= 4

Implementation Tools and Policies	Pts. Avail.	Pts. Rec. or N/A	Notes and Local References
Inspections of construction sites occur at for at least 25% of permitted projects to ensure proper installation of approved practices.	1	1	
Require conservation/green infrastructure bond/escrow in zoning/subdivision ordinances to ensure installation/maintenance of green infrastructure storm water management facilities.	1	0	

1
PAGE TOTAL

+ SUBTOTAL FROM PREVIOUS PAGE 4

= 5 (TOTAL POINTS AVAILABLE: 39)

▼ **Total score for SECTION 5: GREEN INFRASTRUCTURE STORMWATER MANAGEMENT PROVISIONS**

This section has been reviewed and scored by Heather Sparkes

Department name Planning Signee HD Sparkes

Town of Arlington

MS4 Annual Report

2015 – 2016

Storm Water Management and Pollution Control Ordinance

ORDINANCE 2015-05

AN ORDINANCE OF THE ARLINGTON BOARD OF MAYOR AND ALDERMEN TO AMEND THE ARLINGTON MUNICIPAL CODE OF ORDINANCES, TITLE 14, CHAPTER 3, STORM WATER MANAGEMENT AND POLLUTION CONTROL

WHEREAS, the Town of Arlington is required by Federal Law and regulation, particularly Title 23 United States Code (U.S.C), and 40 Code of Federal Regulations (CFR) Chapter 1, Part 122.32 through 122.35, to obtain a National Pollutant Discharge Elimination System (MPDES) Permit from the Tennessee Department of Environment and Conservation for stormwater discharges from the Town of Arlington Separate Storm Sewer System, also referred to as the Town of Arlington MS4; and

WHEREAS, the State of Tennessee Department of Environment and Conservation has issued a permit to the Town of Arlington MS4 on January 27, 2014;

WHEREAS, the NPDES Permit requires the Town of Arlington to impose controls to reduce the discharge of pollutants in storm water to the maximum extent practicable using management practices, control techniques and system design and engineering methods, and such other provisions which are determined to be appropriate for the control of such pollutants; and

WHEREAS, the Town of Arlington previously adopted regulations to manage storm water pollutants in 2004; and

WHERAS, it is necessary to periodically amend regulations.

NOW, THEREFORE, BE IT RESOLVED, by the Arlington Board of Mayor and Aldermen that the Town of Arlington Municipal Code of Ordinances by modified by deleting the current Title 14, Chapter 3 in its entirety and replacing it with the attached Exhibit A:

BE IT FURTHER ORDAINED that this Ordinance shall take effect July 15, 2015 and following publication in a newspaper of general circulation, the public health, safety and welfare requiring it.

1st Reading May 4, 2015

2nd Reading June 1, 2015

Public Hearing June 1, 2015 Publication May 11, 2015

Mike Wissman, Mayor

Attest:

Recorder

CHAPTER 3

STORM WATER MANAGEMENT AND POLLUTION CONTROL

SECTION

14-301. General provisions. The intended purpose of this ordinance is to safeguard property and public welfare by regulating storm water drainage and requiring temporary and permanent provisions for its control. If any requirement specified herein conflicts with requirements in other Town ordinances, regulations or policies, the more stringent requirement for the safeguard of human life, property or water quality shall apply. Design, planning and engineering companies should use this ordinance to facilitate their designs for control of storm water in new and redevelopment. The objectives of this chapter are to:

(1) Protect, maintain and enhance the environment of the Town of Arlington (referred herein as the Town) and the public health, safety and general welfare of the citizens of the Town by controlling discharges of pollutants to the Town's storm water system and to maintain and improve the quality of the receiving waters into which the storm water outfalls flow, including, without limitation, lakes, rivers, streams, ponds, wetlands and groundwater of the Town;

(2) Enable the Town to comply with the National Pollution Discharge Elimination System (NPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4) and applicable regulations, 40 CFR 122.26 for storm water discharges;

(3) Allow the Town to exercise the powers granted in Tennessee Code Annotated (TCA) §68-221-1105, which provides that, among other powers, municipalities have with respect to storm water facilities, is the power of ordinance or resolution to:

(a) Exercise general regulation over the planning, location, construction, and operation and maintenance of storm water facilities in the Town, whether or not owned and operated by the Town;

(b) 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;

(c) Establish standards to regulate storm water discharges and to regulate storm water contaminants as may be necessary to protect water quality;

(d) Review and approve plans and plats for storm water management in proposed subdivisions or commercial developments;

(e) Issue permits for storm water discharges or for the construction, alteration, extension, or repair of storm water facilities;

(f) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit;

(g) Regulate and prohibit discharges into storm water facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and

(h) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of storm water contamination, whether public or private.

(4) Eliminate any non-allowable discharges to the MS4 that adversely impact water quality;

(5) Provide for the sound use and development of all flood-prone areas in such a manner as to maximize beneficial use without increasing flood hazard potential or diminishing the quality of the natural storm water resources;

(6) Increase the awareness of the public, property owners and potential homebuyers regarding storm water impacts (i.e. flooding, erosion);

(7) Minimize prolonged business interruptions;

(8) Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone, storm and sanitary sewer lines; and streets and bridges;

(9) Promote a functional public and private storm water management system that will not result in excessive maintenance costs;

(10) Encourage the use of natural and aesthetically pleasing design that maximizes preservation of natural areas;

(11) Promote the use of comprehensive watershed management plans;

(12) Encourage preservation of floodplains, floodways and open spaces; and

(13) Encourage community stewardship of the Town's water resources.

14-302. Jurisdiction. The provisions of this chapter apply to the area within the jurisdictional boundaries of the Town of Arlington, Tennessee.

14-303. Administering entity. The Mayor or his designee shall administer the provisions of this ordinance.

14-304. Definitions. For the purpose of this chapter, unless specifically defined below, words or phrases shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its' most effective application. Words in the singular shall include the plural, and words in the plural shall include the singular. Words used in the present tense shall include the future tense. The word "shall" connotes mandatory and not discretionary; the word "may" is permissive.

(1) "Accidental discharges" means a discharge prohibited by this chapter into the Town of Arlington MS4 that occurs by chance and without planning or consideration prior to occurrence.

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

(3) "As-built plans" means drawings depicting conditions as they were actually constructed.

(4) "Best management practices" or "BMPs" means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollution of storm water runoff. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

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

(6) "Brownfield" means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

(7) "Buffer zone, water quality buffer or waterway buffer" means a setback from the top of the water body's bank of undisturbed perennial native vegetation, including trees, shrubs, herbaceous vegetation, enhanced or restored vegetation, or the re-establishment of native vegetation bordering streams, ponds, wetlands, springs, reservoirs or lakes separating the water body from buildings, structures, parking lots, drives and other land uses that alter habitat, geomorphology, water quality, and hydrology. Waterway buffers may also act as floodplain storage and a passive drainage way.

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

(9) "Clean Water Act" or "The Act" means the Federal Water Pollution Control Act, as amended, codified at 33 U.S.C. 1251, et seq.

(10) "Clearing" in the definition of discharges associated with construction activity, typically refers to removal of vegetation and disturbance of soil prior to grading or excavation in anticipation of construction activities. Clearing may also refer to wide area land disturbance in anticipation of non-construction activities; for instance, clearing forested land in order to convert forestland to pasture for wildlife management purposes. Clearing, grading and excavation do not refer to clearing of vegetation along existing or new roadways, highways, dams or power lines for sight distance or other maintenance and/or safety concerns, or cold planing, milling, and/or removal of concrete and/or bituminous asphalt roadway pavement surfaces. The clearing of land for agricultural purposes is exempt from federal stormwater NPDES permitting in accordance with Section 401(1)(1) of the 1987 Water Quality Act and state stormwater NPDES permitting in accordance with the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.).

(11) "Chronic violator" means a violator that commits two or more of any violation within a six (6) month period.

(12) "Commercial" means property devoted in whole or part to commerce, that is, the exchange, buying, and selling of commodities or services. The term shall include, by way of example, but not be limited to the following businesses: amusement establishments, animal clinics or hospitals, automobile service stations, automobile dealerships for new or used vehicles, automobile car washes, automobile and vehicular repair shops, banking establishments, beauty and barber shops, bowling alleys, bus terminals, and repair shops, camera shops, dental offices or clinics, day care centers, department stores, drug stores, funeral homes, furniture stores, gift shops, grocery stores, hardware stores, hotels, jewelry stores, laboratories, laundries, and dry cleaning establishments, liquor stores, medical offices and clinics, motels, movie theaters, office buildings, paint stores or shops, parking

lots, produce markets, professional offices, radio stations, repair establishments, retail stores, television stations and production facilities, theaters, truck or construction equipment service stations, truck or construction equipment dealerships for new or used vehicles, truck or construction equipment washing facilities and truck or construction equipment repair shops.

(13) "Commencement of construction" The initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

(14) "Common plan of development or sale" broadly means 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.

(15) "Compliance inspection" means an inspection of a construction activity for the purpose of determining the adherence to and effectiveness of approved BMPs.

(16) "Construction activity" shall mean any clearing, grading, excavating, or equipment usage that will result in the disturbance of the land surface and is subject to storm water permit requirements under the State of Tennessee general permit for storm water discharges associated with construction activity. The term shall not include:

(a) Such minor construction activities as home gardens and individual home landscaping, home repairs, home maintenance work and other related activities that result in minor soil erosion;

(b) Individual service and sewer connections for single or two family residences;

(c) Agricultural practices involving the establishment, cultivation or harvesting of products of the field or orchard, preparing and planting of pasture land, forestry land management practices including harvesting, farm ponds, dairy operations, and livestock and poultry management practices and the construction of farm buildings;

(d) Any project carried out under the technical supervision of the Natural Resources Conservation Service of the United States Department of Agriculture;

(e) Installation, maintenance, and repair of any underground public utility lines when such activity occurs in an existing hard surface road, street or sidewalk, provided the activity is confined to the area of the road, street or sidewalk which is hard surfaced and a street, curb, gutter or sidewalk permit has been obtained, and if such area is less than one acre of disturbance;

(17) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

(18) "Design storm event" means a hypothetical storm event of a given frequency interval and duration, used in the analysis and design of a storm water 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.

(19) "Development" means any activity subject to the State of Tennessee General NPDES Permit for Discharge of Stormwater Associated with Construction Activities (TNCGP).

(20) "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.

(21) "Discharge of a pollutant, discharge of pollutants" and "discharge", when used without qualification, each refer to the addition of pollutants to waters from a source. This definition includes additions of pollutants into waters of the state from: surface runoff, which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person, which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into the municipal separate storm sewer system.

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

(23) "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.

(24) "Erosion Prevention and sediment control plan (EPSC Plan)" 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.

(25) "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 hot spots, 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) public works storage areas
(g) facilities that generate or store hazardous waste materials
(h) commercial container nursery
(i) restaurants and food service facilities
(j) other land uses and activities as designated by an appropriate review authority

(26) "Illicit connection" means illegal and/or unauthorized connections to the MS4 whether or not such connections result in discharges into the system.

(27) "Illicit discharge" means any discharge to the MS4 that is not entirely composed of storm water, except discharges authorized under a NPDES permit (other than the NPDES permit for discharges from the MS4), discharges resulting from firefighting activities (40 CFR §122.26(b)(2)) and allowable discharges listed in §14-306.

(28) "Impervious" means not allowing the passage of water through the surface of the ground or ground covering or a substantial reduction in the capacity for water to pass through the surface of the ground or ground covering.

(29) "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.

(30) "Maintenance" means any activity that is necessary, including but not limited to reconstruction and property maintenance, to keep a storm water facility in good working order so as to function as designed.

(31) "Maintenance agreement" means a document recorded in the Shelby County Register's office that acts as a property deed restriction, and which provides for long-term maintenance of storm water management facilities.

(32) "Manager" means the Mayor's designee who is designated to supervise the operation of the storm water management program and who is charged with certain duties and responsibilities by this chapter, or his/her duly authorized representative.

(33) "Memphis & Shelby County Drainage Design Manual (MSCDDM)" means the guidance document adopted for use by Shelby County to provide the technical standards and information necessary for proper design and construction of storm water management facilities and the management of storm water management infrastructure.

(34) "Municipal inspector" means an employee of the Town that has successfully completed the Tennessee Erosion Prevention and Sediment Control Level 1 Course or Recertification Course and whose duties include the inspection of construction activities.

(35) "Municipal Separate Storm Sewer System" or "MS4" means a conveyance or system of conveyances (including roads and streets with their drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(a) Owned and operated by the Town;

(b) Designed or used for collecting or conveying storm water;

(c) Which is not a combined sewer; and

(d) Which is not part of a publicly owned treatment works as defined at 40 CFR §122.2.

(36) "National Pollutant Discharge Elimination System" or "NPDES permit" means a permit issued pursuant to 33 U.S.C. chapter 26 Water Pollution Prevention and Control, subchapter IV Permits and Licenses, § 1342.

(37) "Notice of Coverage or NOC" means a written approval from TDEC authorizing site operators to discharge storm water associated with construction activities in accordance with the effective TNCGP.

(38) "Notice of Intent or NOI" means a written request to TDEC by site operators for authorization to discharge storm water associated with construction activities in accordance with the effective TNCGP.

(39) "Notice of Termination or NOT" means a written notice issued by TDEC that coverage under the construction general permit is terminated due to completion of the project, cessation of land disturbing activities, and final stabilization of all disturbed areas.

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

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

(42) "Operator" for the purpose of this ordinance and 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 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 that at different phases of a construction project, different types of parties may satisfy the definition of "operator."

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

(44) "Person" means any individual, partnership, co-partnership, firm, company, trust estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by context.

(45) "Pollution" means any human-made or human-induced change in the chemical, physical or biological and radiological integrity of water.

(46) "Regional facility" means a storm water management facility designed to serve more than two (2) properties.

(47) "Redevelopment" means any development subject to the Tennessee General Permit for Construction Activities.

(48) "Routine inspection" means the normal visits of municipal inspectors to construction activities for the purpose of monitoring the construction process.

(49) "Runoff" means that portion of the precipitation on a drainage area that is discharged from the area into the MS4.

(50) "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 as a product of erosion.

(51) "Sedimentation" means the action or process of forming or depositing sediment.

(52) "Significant spills" releases of oil or hazardous substances in excess of reportable quantities under section 311 of the Clean Water Act (at 40 CFR 110.10 and CFR 117.21) or section 102 of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), (at CFR 302.4).

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

(54) "Storm water" refers to water induced or created from precipitation whether rain, snow or ice and either stored, collected, detained, absorbed, or discharged.

(55) "Stormwater entity or entities" means the entity or entities designated by the Town to administer the stormwater management ordinance, and other stormwater rules and regulations adopted by the Town.

(56) "Storm water management facility" means a storm water management control device, structure, or system of such physical components designed to treat, detain, store, convey, absorb, conserve, protect, or otherwise control storm water.

(57) "Storm water management" means the collection, conveyance, storage, treatment and disposal of storm water in a manner to meet the objectives of this chapter and its terms, including, but not be limited to measures that control the increase volume and rate of storm water runoff and water quality impacts caused or induced by man made changes to the land.

(58) "Storm water management plan" or "SWMP" means the set of drawings and other documents that comprise all of the information and specifications for the programs, drainage systems, structures, BMPs, concepts, and techniques for the Town of Arlington and as part of this chapter.

(59) "Storm water pollution prevention plan" or "SWPPP" means a written site specific plan to eliminate or reduce and control the pollution of storm water through designed facilities, natural or constructed, and best management practices (BMP's).

(60) "Storm water runoff" means storm water flow on the surface of the ground.

(61) "Storm sewer system" means the network of conveyances and storage facilities that collect, detain, absorb, treat, channel, discharge, or otherwise control the quantity and/or quality of storm water.

(62) "Stream" means any river, creek, slough or natural water course in which water usually flows in a defined bed or channel. It is not essential that the flowing be uniform or uninterrupted. The fact that some parts of the bed have been dredged or improved does not prevent the water course from being a stream. For the purposes of this ordinance, a stream is not a "wet weather conveyance" as also defined herein. Typically, as a guideline, perennial streams are identified on USGS maps by solid blue lines and intermittent streams are depicted by dashed blue lines.

(63) "Structural BMPs" means facilities that are constructed to provide control of storm water runoff.

(64) Surface water" means waters on the surface of the earth in bounds created naturally or artificially including, by way of example and not limited to, streams, other water courses, lakes and reservoirs.

(65) "Variance" means the modification of the minimum storm water management requirements contained in this chapter and the storm water management plan for specific circumstances where strict adherence of the requirement would result in unnecessary hardship and not fulfill the intent of this chapter.

(66) "Water quality buffer". See "Buffer zone".

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

(68) "Water quality" means characteristics that are related to the physical, chemical, biological, and/or radiological integrity of storm water.

(69) "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 a single ownership which does not combine or effect a junction with natural surface or underground waters.

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

(71) "Waterway buffer" See buffer zone"

(72) "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.

(73) "Wet weather conveyance" is defined in Rule 0400-40-03 of the Rules of the Tennessee Department of Environment and Conservation. Wet weather conveyances are man-made or natural water courses, including natural water courses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality, the channels of which are above the groundwater table and which do not support fish or aquatic life and are not suitable for drinking water supplies. Rule 0400-40-03-.02(6) requires that waters designated as wet weather conveyances shall be protective of wildlife and humans that may come in contact with them and maintain standards applicable to all downstream waters. No other use classification or water quality criteria apply to these waters.

14-305. Abbreviations.

(1) BMP – Best Management Practice

(2) ARAP – Aquatic Resource Alteration Permit

(3) CERCLA – means the Comprehensive Environmental Response, Compensation and Liability Act in its original form or as amended.

(4) CFR – Code of Federal Regulations

(5) CWA – Clean Water Act

(6) FEMA – Federal Emergency Management Agency

(7) MS4 – Municipal Separate Storm Sewer System means the Town of Arlington separate storm water system both natural and manmade as may be subject to the NPDES Storm Water Permit for the Town of Arlington.

(8) NOC – Notice of Coverage

(9) NOI – Notice of Intent

(10) NOT – Notice of Termination

(11) MSCDDM – Memphis & Shelby County Drainage Design Manual

(12) SWMP – Storm Water Management Plan

(13) SWPPP – Storm Water Pollution Prevention Plan

(14) TCA – Tennessee Code Annotated (latest version)

(15) TNCGP – Tennessee Construction General Permit (latest version), which is incorporated by reference in this ordinance as if fully set herein.

(16) TMSP – Tennessee Multi-Sector Permit (TMSP) for Storm Water Discharges Associated with Industrial Activity (See section 30-135), which is incorporated by reference in this ordinance as if fully set herein.

(17) USACOE – means United States Army Corps of Engineers

(18) U.S.C – means United States Code (Ord. #2004-16, Jan. 2005)

14-306. Illicit discharges. This section shall apply to all water generated on developed or undeveloped land entering the MS4.

(1) Unauthorized discharge a public nuisance. Discharge of storm water in any manner in violation of this chapter; or any violation of any condition of a permit issued pursuant to this chapter; or any violation of any condition of a storm water discharge permit issued by the State of Tennessee Department of Environment and Conservation is hereby declared a public nuisance and shall be corrected or abated.

(2) 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.

(3) Improper disposal and illicit discharges.

(a) It shall be unlawful for any person to improperly dispose any contaminant into the Town of Arlington MS4. Contaminants include, but are not limited to the following:

(i) Trash or debris;

(ii) Construction materials;

(iii) Petroleum products including but not limited to oil, gasoline, grease, fuel oil, or hydraulic fluids;

(iv) Antifreeze and other automotive products;

(v) Metals in either particulate or dissolved form;

(vi) Flammable or explosive materials;

(vii) Radioactive material;

(viii) Batteries, including but not limited to, lead acid automobile batteries, alkaline batteries, lithium batteries, or mercury batteries;

(ix) Acids, alkalis, or bases;

(x) Paints, stains, resins, lacquers, or varnishes;
(xi) Degreasers and/or solvents;
(xii) Drain cleaners;
(xiii) Pesticides, herbicides, or fertilizers;
(xiv) Steam cleaning wastes;
(xv) Soaps, detergents, or ammonia;
(xvi) Swimming pool backwash including chlorinated swimming pool discharge;
(xvii) Chlorine, bromine, and other disinfectants;
(xviii) Heated water;
(xix) Animal waste from commercial animal or feeder lot;
(xx) Any industrial and sanitary wastewater, including leaking sewers or connections;
(xxi) Recreational vehicle waste;
(xxii) Animal carcasses;
(xxiii) Food wastes;
(xxiv) Medical wastes;
(xxv) Collected lawn clippings, leaves, branches, bark, and other fibrous materials;
(xxvi) Collected silt, sediment, or gravel;
(xxvii) Dyes, except as stated in subsection (B);
(xxviii) Chemicals, not normally found in uncontaminated water;
(xxix) Any hazardous material or waste, not listed above;
(xxx) Washing of fresh concrete for cleaning and/or finishing purposes or to expose aggregates;
(xxxi) Junk motor vehicles, as defined in subsection (c);
(xxxii) Liquid from solid waste disposal containers.
(xxxiii) Domestic animal waste

Penalties for minor discharges that have no significant adverse impact on safety, health, the welfare of the environment, or the functionality of the town's storm water collection system may be waived at the discretion of the Manager.

(b) Dye testing. Dye testing is allowed but requires verbal notification to the Manager a minimum of twenty-four (24) hours prior to the date of the test. The Town of Arlington governmental agencies are exempt from this requirement.

(c) Junk motor vehicles, definition thereof. "Junk motor vehicle" means any vehicle, which shall include by way of example but not be limited to the following vehicle types: automobiles, construction equipment, motorcycles, and trucks, which meets all of the following requirements:

(i) Is three years old or older;
(ii) Is extensively damaged, such damage including, but not limited to any of the following: A broken window or windshield or missing wheels, engine or transmission;
(iii) Is apparently inoperable;
(iv) Is without a valid current registration;
(v) Has a fair market value equivalent only to the value of the scrap in it.

(4) Exceptions, allowable discharges. The following types of discharges shall not be considered prohibited discharges for the purpose of this chapter unless the Manager determined that the type or quantity of discharge, whether singly or in combination with others, is causing significant contamination of the Town of Arlington MS4.

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

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

(c) Dye testing as permitted in Section 3(b) above.

(d) Discharges authorized by the Construction General Permit (CGP):
(i) dewatering of work areas of collected storm water 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 the CGP;
(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 foundation or footing drains where flows are not contaminated with pollutants (process materials such as solvents, heavy metals, etc.).

(5) Illicit connection, defined. Any connection, existing or future, identified by the Manager, as that which could convey anything not composed entirely of storm water directly to the Town of Arlington MS4 is considered an illicit connection and is prohibited with the following exceptions:

(a) Connections conveying allowable discharges as defined in § 14-306(4);

(b) Connections conveying discharges pursuant to an NPDES permit (other than an NPDES storm water permit).

(6) Monitoring and inspection.

(a) Monitoring. The Manager shall periodically monitor compliance of the storm water NPDES permit holder.

(b) Detection of illicit connections and improper disposal. The Manager shall take appropriate steps to detect and eliminate illicit connections to the Town of Arlington MS4, including the adoption of programs to identify illicit discharges and their source or sources and provide for public education, public information and other appropriate activities to facilitate the proper management and disposal of used oil, toxic materials and household hazardous waste.

(c) Inspections.

(i) The Manager or his designee, bearing proper credentials and identification, may enter and inspect properties for inspections, investigations, monitoring, observation, measurement, enforcement, sampling and testing, to effectuate the provisions of this chapter, the storm water management plan, and/or the NPDES storm water permit. The Manager or his designee shall duly notify the owner of said property or the representative on site and the inspection shall be conducted at reasonable times.

(ii) Upon refusal by any property owner to permit an inspector to enter or continue an inspection, the inspector shall terminate the inspection or confine the inspection to areas wherein no objection is raised. The inspector shall immediately report the refusal and the circumstances to the Manager. The Manager may seek appropriate action.

(iii) In the event the Manager or his designee reasonably believes that discharges into the Town of Arlington MS4 may cause an imminent and substantial threat to human health or the environment, the inspection may take place at any time and without notice to the owner of the property or a representative on site. The inspector shall present proper credentials upon request by the owner or representative.

(iv) At any time during the conduct of an inspection or at such other times as the Manager or his designee may request information from an owner or representative, the owner or representative may identify areas of the facility or establishment, material or processes which contains or may contain a trade secret. If the Manager or his designee has no clear and convincing reason to question such identification, the inspection report shall note that trade secret information has been omitted. To the extent practicable, the Manager shall protect all information that is designated as a trade secret by the owner or their representative. (Ord. #2004-16, Jan. 2005)

(7) Reduction of storm water pollutants by use of BMPs. 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 that person's expense, the BMPs necessary to prevent further discharge of pollutants to the MS4. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water from an industrial activity, to the extent practicable, shall be deemed in compliance with the provisions of this section.

(8) 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 MS4, 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 911. In the event of a release of non-hazardous materials, the person shall notify the Manager 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 Manager within three (3) business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an onsite written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least five (5) years.

(9) Illegal dumping. 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 Town.

14-307. Construction and Permanent Storm Water Management Design and Construction.

(1) MS4 Storm Water design and BMP manuals. The Town adopts as its MS4 design and BMP manuals for construction and permanent storm water management the following publications, which are incorporated by reference in this ordinance as if fully set herein. The manuals include a list of acceptable BMPs including specific design performance criteria and operation and maintenance requirements for each storm water practice. The manuals may be updated and expanded from time to time at the discretion of the Board of Mayor and Aldermen, upon the recommendation of the Manager based on improvements in engineering, science, monitoring, local maintenance experience, or changes in Federal or State laws or regulation. Designers and engineers are encouraged to use new and innovative techniques that perform to at least the minimum standards contained in the manuals. The specific application of BMP practices is subject to approval of the Manager. Stormwater facilities that are designed, constructed and maintained in accordance with these BMP criteria will be presumed to meet the minimum water quality performance standards.

(a) TDEC Erosion Prevention and Sediment Control Handbook.
(b) Shelby County Watershed Management Practices Manual.
(c) City of Memphis/Shelby County Storm Water Management Manual.
(d) Town of Arlington Watershed Management Practices Manual.
(e) Town of Arlington Public Works Standard Specifications and Drawings.

(2) Land development. All land development in the Town including, by example but not limited to, site plan applications, subdivision applications, land disturbance applications and grading applications for new development or redevelopment construction activities shall be subject to the provisions of this chapter, the Town's floodplain portion of the zoning ordinance, and the subdivision regulations. Other projects may be required to obtain authorization under this ordinance if:

(a) The Manager has determined that storm water discharge from a site is causing, contributing to, or is likely to contribute to a violation of state water quality standards;

(b) The Manager has determined that the storm water discharge is, or is likely to be, a significant contributor of pollutants to waters of the state; or

(c) Changes in state or federal rules require sites of less than one (1) acre that are not part of a larger common plan of development or sale to obtain a storm water permit.

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

(3) NOI. The operators of non-exempt construction activities shall apply to TDEC for coverage under the TNCGP as part of the Town's plan review and approval process. Application procedures and required information for submittal of the NOI is contained in the TNCGP. An individual permit may be required as specified in section 7 of the TNCGP as well as an Aquatic Resource Alteration Permit (ARAP) as specified in section 10 of the TNCGP

(4) SWPPP. The operators of non-exempt construction activities shall provide a copy of the construction activity SWPPP for review as part of the Town's plan review and approval process. The TNCGP specifies what information is required to be included in the SWPPP. Changes to the SWPPP after plan review and approval shall be submitted to the Manager for approval. Operators of non-exempt construction activities involving the building of family residential units shall submit a copy of the SWPPP to the Public Works Department.

(5) NOC and NOT. The operators of non-exempt construction activities shall provide a copy of the Notice of Coverage (NOC) issued by TDEC prior to the commencement of any construction activity on the site. Upon completion of the project and acceptance by TDEC, a Notice of Termination (NOT) is issued. The operator shall submit a signed copy of the NOT to the Town.

(6) Erosion Control Phasing Plan. An erosion control phasing plan describing the vegetative stabilization and management techniques to be used at a site during and after construction is completed shall be submitted with the final design as part of the Town's plan review and approval process. This plan shall explain not only how the site will be stabilized after construction, but also 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. Changes to the erosion control phasing plan after plan review and approval shall be submitted to the Manager for approval.

(7) General design performance criteria for permanent storm water management. The storm water discharges from new development and redevelopment sites are to be managed such that post-development peak discharge does not exceed the predevelopment peak discharge at the site unless approved by the Manager.

(a) All new development is required to discharge post development flows at the 2, 10, and 25 year storm events at a peak level of pre-existing conditions. The Manager may require post development flows at other intervals. Discharge for water quality is encouraged to be designed into the project to include green infrastructure or other flow inhibiting designs.

(8) Detention requirements. All developments will be designed to incorporate detention with a storage volume sized for the 25 year storm and over-topping of a 100 year storm. Peak rate outflow control structure will meet the pre-development 2, 10, and 25 year storms.

(9) Permanent Storm Water Management Plan (SWMP) requirements. The operators of non-exempt construction activities shall submit a SWMP for post construction permanent BMPs as part of the Town's plan review and approval process. The SWMP shall include sufficient information to allow the Manager to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development on the site (both present and future) on the water resources, and the effectiveness and acceptability of the measures proposed for managing storm water generated at the project site. The operator may use the SWPPP as the SWMP provided the following information is included:

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

(i) Existing surface water drainage including streams, ponds, culverts, ditches, sink holes, wet lands and the type, size elevation etc., of the nearest upstream and downstream drainage structures and/or storm water management facilities;

(ii) Current land use including all existing structures, locations of utilities, roads and easements;

(iii) All other existing significant natural and artificial features;

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

(b) Proposed structural and non-structural BMPs;

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

(d) Hydrologic and hydraulic calculations for the pre-development and post-development conditions for a 2, 10, 25, and 100 year design storm. These calculations must show that the proposed storm water management measures are capable of controlling runoff from the site in compliance with this ordinance. Such calculations shall include:

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

(ii) Time of concentration;

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

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

(v) Infiltration rates, where applicable;

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

(vii) Flow velocities;

(viii) Data on the increase in rate and volume of runoff for a design storm; and

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

(e) A soils report if a storm water management control measure depends on the hydrologic properties of soils (e.g. infiltration basins). 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.

(f) Detailed maintenance and repair procedures for permanent storm water management facilities.

Changes to post-construction permanent BMPs after plan review and approval shall be submitted to the Manager for approval.

(10) Maintenance and repair plan. The design and planning of all permanent storm water management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans shall identify the parts or components of a storm water 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. Approved maintenance and repair plans shall be recorded in the Shelby County Register's office and shall act as a property deed restriction to ensure maintenance and repair responsibilities are carried out in perpetuity.

(11) Construction plans. Proposed plans for construction shall be stamped by a professional engineer licensed in the State of Tennessee and submitted as part of the Town's plan review and approval process. The plans shall include all proposed

improvements or modifications to the existing or new storm water infrastructure, erosion prevention and sediment control practices and other related improvements or modifications.

(a) The Town encourages regional watershed management practices and facilities. These practices will be encouraged in order to replace or reduce the implementation of on-site storm water management facilities.

(b) Each individual project shall be evaluated for consistency with the adopted watershed master plan, when available, for the major watershed or watersheds within which the project site is located. The individual project evaluation will determine if proposed storm water management practices can adequately serve the property and limit impacts to downstream public and private properties. The presence of a regional facility(s) will be considered in determining the extent to which peak discharge and/or quality controls will be necessary.

(c) In the absence of such a storm water master plan, a system of uniform requirements shall be applied to each individual project site. In general, these uniform requirements may be based on the criteria that storm water discharges from new development and redevelopment sites are to be managed such that post-development peak discharge does not exceed the pre-development peak discharge at the site.

(d) Minimum development may be permitted in the floodplain; however, the developer may be required by the Manager to demonstrate "no adverse impact" on upstream or downstream facilities, uses, residences, or related structures. If substantial fill alteration is required, the Manager may require a "no rise" certification.

(e) Under no circumstances shall a site be graded or drained in such a way as to increase surface runoff to sinkholes, dry wells, or drainage wells.

(f) Development of properties containing existing on-site storm water management facilities may be permitted, at the discretion of the Manager, provided the property and downstream public and private properties, infrastructure or waters of the state are adequately protected from adverse storm water impacts.

(g) Soil bioengineering, green and other soft slope and stream bank stabilization methods are encouraged. The use of greenway right-of-way for appropriate properties is encouraged along all waters of the state.

(h) The Town shall require the set aside of land along all waters of the state as land development occurs. A permanent waterway buffer shall be applied as specified in Appendix A.

(12) Construction activities. It shall be unlawful for any person to permit any discharge of storm water from a construction activity as defined in §14-304 without a TNCGP or an individual NPDES permit. Erosion or sedimentation, or transport of other pollutants or forms of pollution, due to various land development activities must be controlled. All construction activities shall be in compliance with applicable permit requirements, federal, state and/or local, and all applicable requirements under this chapter. Additionally:

(a) No earth disturbing activities shall be performed at a construction activity until:

(i) A NOC has been received from TDEC. A copy of the NOC shall be provided to the Manager;

(ii) All appropriate permits have been obtained;

(iii) Construction plans have been approved by the Town;

(iv) Appropriate erosion prevention and sediment control BMPs, consistent with those described in the BMP manuals referenced in §14-307(1) and identified in the site's approved SWPPP, are in place; and

(v) A pre-construction meeting has been conducted.

(b) Operators shall control wastes such as but not limited to discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site to avoid adverse impacts on water quality;

(c) The Manager may stop or cause to have stopped construction or administer other enforcement actions as defined in this chapter on properties that do not have adequate erosion prevention and sedimentation control measures in place or properly maintained.

(d) In activities that have been released from the development phase to the building phase, any changes in the development phase grading of more than two (2) feet (cut or fill) shall require a lot specific grading and drainage plan to show how the owner plans to accommodate drainage to or from adjacent lots. The Manager is empowered to stop or cause to be stopped any work on the lot until such time as a grading and drainage plan is submitted and approved by the Manager.

(e) After construction activities are complete, operators obtaining coverage under the TNCGP or an individual NPDES permit shall submit a Notice of Termination (NOT) to TDEC as specified in section 8 of the TNCGP. The Manager is hereby empowered to retain or cause to be retained bonds, letters of credits, withholding of use and occupancy permits or other sureties as the Manager deems appropriate until NOT acceptance by TDEC. Operators shall provide a copy of the approved NOT to the Manager.

14-308. Operation, maintenance and inspection of permanent storm water management facilities.

(1) As-built plans. All operators shall submit as-built plans for all permanent storm water management structures after final construction is completed to the Town Engineer. The plans must show the final flow line elevations, slopes, locations and/or design specifications for all storm water management facilities, as applicable for the facility, and must bear the seal of a registered professional engineer licensed to practice in the State of Tennessee. The registered professional shall certify that the facilities have been constructed in substantial and essential conformance to the design plan. The Manager is hereby empowered to retain or cause to be retained bonds, letters of credits, withholding of use and occupancy permits or other sureties as the Manager deems appropriate until proper as-built plans have been delivered.

(2) Erosion control phasing plan and stabilization requirements. Any area of land from which the natural vegetative cover has been either partially or wholly cleared by a construction activity shall be stabilized. Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased.

(a) Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed not later than 15 days after the construction activity in that portion of the site has temporarily or permanently ceased. Natural or created slopes three to one (3 to 1) or steeper shall be temporarily stabilized not later than seven (7) days after construction activity on the slope 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 or seven (7) days for slopes three to one (3 to 1) or steeper.

(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. Slopes three to one (3 to1) or steeper shall be solid sodded.

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

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

(ii) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.

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

(iv) In addition to the above requirements, a landscaping plan must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but also 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) Right of access. The owner(s) shall maintain a perpetual right of access for inspection and emergency access by the Town. The Town has the right, but not the duty, to enter premises for inspection and emergency repairs.

(4) Inspection of storm water management facilities. Periodic inspections of facilities shall be performed, documented, and reported in accordance with this chapter, as detailed in §14-308.

(5) Records of installation and maintenance activities. Parties responsible for the operation and maintenance of a storm water management facility shall make records of the installation of the storm water facility, and of all maintenance and repairs to the facility, and shall retain the records for at least five (5) years. These records shall be made available to the Town during inspection of the facility and at other reasonable times upon request.

(6) Infrastructure maintenance. It shall be the responsibility of the property owner of record for the maintenance of storm water infrastructure. Maintenance of storm water infrastructure consists of a minimum but is not limited to the following items as they apply to the specific storm water facility: outlet cleaning, mowing, herbicide spraying, litter control, removal of sediment from basin and outlet structures, repair of drainage structures, and other items that may be included in the facilities maintenance and repair

plan. All such activities will be conducted in an environmentally sound manner and consistent with applicable codes, rules, and/or standards. No modifications shall be made to open ditches or other wet weather conveyances without coordination with the Manager. All storm water management control facilities proposed by the owners and approved by the Manager for dedication as a public facility shall be maintained by the owner until such time as the Manager accepts the facilities. Upon acceptance, the facilities shall be publicly owned and /or maintained.

(7) Maintenance documents. Maintenance requirements for new privately owned permanent storm water management facilities may also be prescribed by a site specific document between the owner or operator and the Town. This document shall be based on an approved site design, a SWPPP, an inspection program, a long-term maintenance plan, an emergency repair plan, easements, and proof or surety of financial responsibility. Approved maintenance documents shall be recorded in the Shelby County Register's office and shall act as a property deed restriction to ensure maintenance and repair responsibilities are carried out in perpetuity.

(8) 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 storm water facilities under this chapter, the Town, 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 storm water management facility becomes a danger to public safety or public health, the Town shall notify in writing the party responsible for maintenance of the storm water management facility. Upon receipt of that notice, the responsible person shall have thirty (30) days to effect maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the Town may take necessary corrective action. The cost of any action by the Town under this section shall be charged to the responsible party. Additionally, the Manager may assess penalties as detailed in §14-311. Such an assessment will be used for cost recovery, to abate damages, and to restore impacted areas.

14-309. Maintenance agreement for storm water management facilities.

(1) On-site storm water management facilities maintenance document. For new construction where the storm water facility is located on property that is subject subdivision or site plan review, and the plans provide for a permanent storm water maintenance document that runs with the land, the owners of property must execute a document 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. The document shall:

(a) Assign responsibility for the maintenance and repair of the storm water 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.

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

(c) 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 storm water 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 manuals and the approved maintenance and repair plan as appropriate.

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

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

(2) Existing locations with no maintenance document. The Town 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-storm water discharges, and to establish inspection programs to verify that all storm water management facilities are functioning within design limits.

(a) 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 Town's NPDES storm water permit; and joint inspections with other agencies inspecting under environmental or safety laws.

(b) 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.

(c) The Manager 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 ordinance shall be regarded as illicit.

(3) 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 in a manner and on a schedule acceptable to the Manager.

(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) Storm water runoff shall 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 such as detention ponds, extended detention ponds, retention ponds and other alternate storage methods.

(ii) Constructed wetlands.

(iii) Infiltration systems such as infiltration/percolation trenches, infiltration basins, drainage (recharge) wells, and porous pavements.

(iv) Filtering systems such as catch basin inserts/media filters, sand filters, filter/absorption beds, and filter and buffer strips.

(v) Open channel such as swales and bio-swales.

(4) Owner/Operator Inspections - The owners and/or the operators of stormwater management practices shall:

(a) Perform routine inspections to ensure that the BMP's 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 Town 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 (5) 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 BMP condition including: vegetation and soils; 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 BMP's, 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 Town may require submittal of this documentation.

(5) Corrections of problems subject to appeal. Corrective measures imposed by the Manager under this section are subject to appeal under §14-312 of this chapter.

14-310. Stormwater discharges from regulated industrial sources.

(1) Purpose. It is the purpose of this chapter to control storm water runoff from industrial sources in order to minimize, to the maximum extent practicable, pollutants discharged from industrial sources into the Town of Arlington MS4. This reduction may be achieved by a combination of management practices, control techniques, system design, engineering methods and plan review.

(2) Industry defined. An industrial facility is one defined as industry by EPA rule, or subject to the Tennessee Multi-Sector Permit (TMSP) for storm water discharges associated with industrial activity.

(3) Right of inspection, defined. Right of inspection is defined in §14-306(6) of this chapter.

(4) Information required. The State of Tennessee utilizes a "notice of intent" for dischargers to obtain coverage under the general permit program for discharges associated with industrial activities. These documents are subject to change and amendment and therefore the user should obtain the latest versions directly from the State of Tennessee Department of Environment and Conservation, Division of Water Pollution Control. These may be obtained at the State's web site. All industries subject to the TMSP and discharging into the Town of Arlington storm sewer system shall maintain a copy of the Storm Water Pollution Prevention Plan (SWPPP) on the industrial site, available for inspection and copying at reasonable times by the Manager.

(5) Storm water pollution prevention plan (SWPPP) requirements. The Storm Water Pollution Prevention Plan (SWPPP) must follow, at a minimum, the outline of the plan listed in the Tennessee Multi-Sector Permit language or a facility's NPDES Storm Water Permit language, whichever is applicable.

(6) Sampling at industrial facilities.

(a) Samples of storm water collected for compliance monitoring shall be representative of the discharge. Sampling locations will be those defined in the Tennessee Multi-Sector Permit or an NPDES Permit. Sampling and analyses shall be in accordance with 40 CFR Part 122.21 and 40 CFR Part 136 and/or applicable permit language.

(b) Samples that may be taken by the Manager and/or his designated representatives for the purpose of determining compliance with the requirements of this chapter or rules adopted hereunder may be split with the discharger if requested before the time of sampling.

(c) The Manager may require a storm water discharger to install and maintain at the discharger's expense a suitable manhole or sampling facility at the discharger's facility or suitable monitoring access to allow observation, sampling, and measurement of all storm water runoff being discharged into the county storm sewer system. Sampling manhole or access shall be constructed in accordance with plans approved by the Manager and shall be designed so that flow measurement and sampling equipment can be installed. Access to the manhole or monitoring access shall be available to the Manager and/or his designated representatives at all times.

(7) Reporting.

(a) Any facility required to sample under either the TMSP or an NPDES Storm Water Permit shall provide a copy of the monitoring report to the Manager.

(b) The Manager may require reporting by dischargers of storm water runoff to the storm water system, where an NPDES storm water permit is not required, to provide information. This information may include any data necessary to characterize the storm water discharge.

(8) Accidental discharges.

(a) In the event of a "significant spill" as defined in "definitions" or any other discharge which could constitute a threat to human health or the environment, the owner or operator of the facility shall give notice to the Manager and the local field office of the Tennessee Department of Environment and Conservation as required by state and federal law following the accidental discharge.

(b) If an emergency response by governmental agencies is needed, the owner or operator should also call the Memphis and Shelby County Emergency Management Agency, immediately to report the discharge. A written report must be provided to the Manager within five (5) days of the time the discharger becomes

aware of the circumstances, unless this requirement is waived by the Manager for good cause shown on a case-by-case basis, containing the following particulars:

(i) A description of the discharge, including an estimate of volume.

(ii) The exact dates, times and duration of the discharge.

(iii) Steps being taken to eliminate and prevent recurrence of the discharge, including any planned modification to contingency, SWPPP or maintenance plans.

(iv) A site drawing should be rendered that shows the location of the spill on the impacted property, the direction of flow of the spill in regards to the topographical grade of the property, the impacted watercourse(s), and the property or properties adjacent to the spill site.

(c) The discharger shall take all reasonable steps to minimize any adverse impact to the Town of Arlington MS4, including such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge. The interruption of business operations of the discharger shall not be a defense in an enforcement action necessary to maintain water quality and minimize any adverse impact that the discharge may cause.

(d) It shall be unlawful for any entity, whether an individual, residential, commercial or industrial entity to fail to comply with the provisions of this section.

(9) Fraud and false statements. Any reports required by this chapter or rules adopted hereunder and any other documents required by the town to be submitted or maintained by the discharger shall be signed by a responsible corporate official and certified as accurate to the best of their personal knowledge after appropriate investigation. It shall be subject to the enforcement provisions of this chapter and any other applicable local and state laws and regulations pertaining to fraud and false statements. Additionally, the discharger shall be subject to the provisions of 18 U.S. Code Section 309 of the Clean Water Act, as amended, governing false statements and responsible corporate officials.

14-311. Enforcement and abatement. Whenever the Manager finds any permittee or person discharging storm water, or other pollutants into the MS4 or otherwise has violated or is violating this chapter, conditions of a storm water permit, or order issued hereunder, the Manager may use enforcement response and abatement actions specified herein to achieve compliance. Although enforcement and abatement actions should be progressively applied until compliance is achieved, enforcement actions may be administered in any sequence as the Manager deems appropriate for the violation. If the Manager deems it necessary, a complaint may be filed with the Commissioner of TDEC pursuant to TCA §69-3-118.

(1) Enforcement authority. The Town 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 minimum, verbal warnings must specify the nature of the violation and required corrective action.

(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) Administrative remedies. The enforcement remedies enumerated herein shall be applicable to all sections of this chapter.

(a) Verbal Warnings. Municipal inspectors are hereby empowered to administer verbal warnings, of which shall be considered as being the same as issued by the Manager. A 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. A verbal warning may be issued upon the first instance of a violation. Violations encountered during routine inspections of construction activities are normally handled verbally. When a verbal warning is utilized, the warning shall specify the nature of the violation and the required corrective action, with deadlines for taking such actions. A verbal warning in no way relieves the discharger of liability for any violations occurring before or after receipt of the warning.

(b) Written Notices. Written notices shall stipulate the nature of the violation and the required corrective action, with deadlines for taking such actions. Written notices shall normally be used starting with the least severe and progressively working to the most sever. Written notices shall be in the following forms, listed from least sever to most severe:

(i) Notice of alleged violation. Prior to the issuance of a Notice of Violation (N.O.V.), the Manager may order any person who causes or contributes, or may be a cause or contributor, to a violation of a storm water permit or order issued hereunder to show cause why a proposed enforcement action not be taken. A Notice of Alleged Violation (N.A.V.) 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 person show cause why this proposed enforcement should not be taken. The N.A.V. and notice of the meeting shall be served personally or by registered or certified mail, with return receipt, and postmarked at least ten (10) business days prior to the hearing. Such notice may be served on any person, principal executive, general partner, corporate officer, or other person with apparent authority to receive such notice.

(ii) Notification of violation. Whenever the Manager finds any permittee or person discharging storm water, or other pollutants into the Town of Arlington MS4, or otherwise has violated or is violating this chapter, conditions of a storm water permit, or order issued hereunder, the Manager or his agent may serve upon said user written N.O.V. This notice shall be by personal service, or registered or certified mail with return receipt. Within ten (10) days of the receipt date of this notice, the recipient of this N.O.V. shall provide the Manager with a written explanation of the violation. The response shall also include a plan for satisfactory correction and prevention thereof, to include specified required actions and milestones for their completion. 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. The Manager will render a response within twenty (20) days. If the Town of Arlington deems it necessary a complaint may be filed with the Commissioner of the Tennessee Department of Environment and Conservation pursuant to Tennessee Code Annotated, § 69-3-118.

(iii) Consent agreement. The Manager is hereby empowered to enter into consent agreements, assurances of voluntary compliance, or other similar documents establishing an agreement with the person or persons responsible for the non-compliance. Such agreements will include specific action to be taken by the permittee or person discharging storm water to correct the non-compliance within a time period specified by the agreements. Consent agreements shall have the same force and effect as compliance orders issued pursuant to subsection (f) below.

(iv) Compliance order. When the Manager finds that any person has violated or continues to violate this chapter or any order issued hereunder, he may issue an order to the violator directing that, following a specified time period, adequate structures and/or devices be installed or procedures implemented and properly operated or followed. Orders may also contain such other requirements as might be reasonable necessary and appropriate to address the non-compliance, including the construction of appropriate structures, installation of devices, self- monitoring and related management practices.

(v) Cease and desist orders. When the Manager finds that any person has violated or continues to violate this chapter or any permit or order issued hereunder and such action or inaction has or may have the potential for immediate and significant adverse impact on the MS4 or the storm water discharges to it, the Manager may issue an order to cease and desist all such violations immediately and direct those persons in non-compliance to:

(1) Comply forthwith; or

(2) Take such appropriate remedial or preventative action as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.

(3) Anyone receiving a cease and desist order that includes instruction to halt operations shall receive an expedited review and appeal of such order within two (2) business days.

(vi) Show-Cause Notice. A show-cause notice is a follow-up to a stop work order. It is initiated when corrective actions have not been accomplished by the deadline provided in the stop work order, and is normally the last written notice before administrative and/or civil penalties are assessed. Additionally, the Manager may order any person who causes or contributes, or may be a cause or contributor, to a violation of a storm water permit or order issued hereunder to show cause why a proposed enforcement action should not be taken. The show-cause notice shall be served on the person, specifying the time and place of the meeting, the proposed enforcement action and the reason for such action, and a request that the person show cause why this proposed enforcement action not be taken. This notice shall be by personal service or registered or certified mail with return receipt and postmarked at least ten (10) days prior to the meeting. A show-cause notice in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice.

(c) Withholding of approvals or other authorizations. The Manager is hereby empowered to withhold or cause to be withheld any permits, plat recordings, bond releases or any other instrument that would normally be issued to the violator until such time as the violations cease. Withholding may be performed in conjunction with other enforcement actions as deemed appropriate by the Manager.

(d) Suspension, revocation or modification of permit. The Town 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 Town. 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 Town may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

(2) Civil penalty. Any person who performs any of the following acts or omissions shall be subject to a civil penalty as set out in part II, chapter 1, §§1-4, Code of Shelby County per day for each day, or part thereof, during which the act or omission continues or occurs.

(a) Violates an effluent standard or limitation of water quality standard established under this chapter or established by TCA Title 69, Chapter 3, Part 1 (State of Tennessee Water Quality Control Act)

(b) Fails to obtain any required permit;

(c) Violates the terms and conditions of such required permit in subsection (d) above;

(d) Fails to allow or perform an entry, inspection, monitoring or reporting requirement

(e) Violates a final determination or order of the Manager; or

(f) Violates any provision of this chapter.

Attachment 1 provides initial assessments for violations of this ordinance that may be assessed by the Manager. Chronic violators may be assessed up to the maximum amount permitted by TCA §68-221-1106. The Manager, with consent of the Mayor, may also initiate civil proceedings in any court of competent jurisdiction seeking monetary damages for any damages caused to the Town of Arlington MS4 by any person, and to seek injunctive or other equitable relief to enforce compliance, with any lawful orders of the Manager.

(3) Unlawful acts, misdemeanor. It shall be unlawful for any person to knowingly:

(a) Violate a provision of this chapter;

(b) Violate the provisions of any permit issued pursuant to this chapter;

(c) Fail or refuse to comply with any lawful notice to abate issued by the Manager, which has not been timely appealed to the governing body within the time specified by such notice; or

(d) Violate any lawful order of the Manager within the time allowed by such order.

Such person shall be guilty of a misdemeanor; and each day of such violation or failure or refusal to comply shall be deemed a separate offense and punishable accordingly. Any person found to be in violation of the provisions of this chapter shall be punished by a fine as set out in part II, chapter 1, §§ 1-4, Code of Shelby County. Upon learning of such act or omission, the Manager may issue a town ordinance citation charging the person, firm, or entity with violating one (1) or more provisions of this ordinance (section) or permit issued thereunder, criminal violation of this chapter (section) may also be the basis for injunctive

relief, with such actions being brought and enforced through the Shelby County General Sessions Environmental Court.

(4) Processing a violation.

(a) The Manager may issue an assessment against any person or permittee responsible for the violation.

(b) Any person against whom an assessment or order has been issued may secure a review of such assessment or order by filing with the Manager a written petition setting forth the specific legal and technical grounds and reasons for his objections and asking for a hearing in the matter involved before the Manager and if a petition for review of the assessment or order is not filed within thirty (30) days after the date the assessment or order is served, the violator shall be deemed to have consented to the assessment and it shall become final;

(c) Whenever any assessment has become final because of a person's failure to appeal the Manager's assessment, the Manager may apply to the appropriate court for a judgment and seek execution of such judgment and the court, in such proceedings, shall treat a failure to appeal such assessment as a confession of judgment in the amount of the assessment;

(d) The Manager may consider the following factors when reviewing a petition:

(i) Whether the civil penalty imposed will be an appropriate economic deterrent to the illegal activity by the violator or others in the regulated community;

(ii) Damages to the town, including compensation for the damage or destruction of the Town of Arlington MS4, and also including any penalties, costs (direct or indirect) and attorneys' fees incurred by the town as a result of the illegal activity, as well as the expenses involved in enforcing this chapter and the costs involved in rectifying any damages;

(iii) Cause of the discharge or violation;

(iv) The severity of the discharge and its effect on the Town of Arlington MS4;

(v) Effectiveness of action taken by the violator to cease the violation;

(vi) The technical and economic reasonableness of reducing or eliminating the discharge;

(vii) The economic benefit gained by the violator;

(viii) The harm done to the public health or environment;

(ix) The amount of effort put forth by the violator to remedy the violation and/or the effectiveness of those remedies;

(x) Any unusual or extraordinary enforcement costs incurred by the Town;

(xi) The amount of penalty established by ordinance or resolution for specific categories of violations;

(xii) Any equities of the situation, which outweigh the benefit of imposing any penalty or damage assessment.

(e) Any civil penalty assessed to a violator pursuant to this section may be in addition to any civil penalty assessed by the Commissioner of the Tennessee Department of Environment and Conservation for violations of Tennessee Code Annotated § 69-3-115; however, the sum of penalties imposed by this section and by Tennessee Code Annotated, § 69-3-115 shall not exceed ten thousand dollars ($10,000) per day during which the act or omission continues or occurs.

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

(i) Construction project or industrial facility location;

(ii) Name of owner or operator;

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

(iv) 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.

(g) Other remedies. The Town 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.

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

(i) Any appeal of this final determination shall be made to a court of competent jurisdiction. Such appeal must be filed within fifteen (15) days of the decision by the Manager.

(5) Appeals judicial proceedings and relief. The Manager may initiate proceedings in any court of competent jurisdiction against any person who has or is about to:

(a) Violate the provisions of this chapter.

(b) Violate the provisions of any permit issued pursuant to this chapter.

(c) Fail or refuse to comply with any lawful order issued by the Manager that has not been timely appealed within the time allowed by this chapter.

(d) Violates any lawful order of the Manager within the time allowed by such order.

Any person who shall commit any act declared unlawful under this chapter shall be guilty of a misdemeanor, and each day of such violation or failure shall be deemed a separate offense and punishable accordingly.

(6) Records retention. All dischargers subject to this chapter shall maintain and preserve for no fewer than five (5) years, all records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling, and chemical analyses made by or in behalf of the discharger in connection with its discharge. All records, which pertain to matters, which are the subject of any enforcement or litigation activities brought by the town pursuant hereto, shall be retained and preserved by the discharger until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

(7) Facilities Maintenance Agreement. The "Inspection and Maintenance Agreement for Private Stormwater Management Facilities" is included in Appendix B as a minimum guideline for agreements between the Town of Arlington and owners/operators of storm water infrastructure not owned by the town.

14-312. Appeals. Pursuant to Tennessee Code Annotated § 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this chapter may appeal said penalty or damage assessment to the Town's governing body.

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

(2) Public hearing. Upon receipt of an appeal, the Town's governing body, or other appeals board established by the Town's governing body shall hold a public hearing within thirty (30) days. Ten (10) days prior notice of the time, date, and location of said hearing shall be published in a daily newspaper of general circulation. Ten (10) days' notice by registered mail shall also be provided to the aggrieved party, such notice to be sent to the address provided by the aggrieved party at the time of appeal. The decision of the governing body of the Town shall be final.

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

Appendix A. Buffer Zone Requirements

1. Any drainage ditch or drainage way shall have permanent buffer zones as detailed below.

BUFFER ZONE REQUIREMENTS (1, 2, 3)

From (ac)	To (ac)	Width from Bank (ft.)
0	100	N/A (4)
101	200	30
201	400	50
401	600	75
601	9999	100

(1) Any buffer zone requirements imposed by TDEC that exceed these values shall supersede these requirements.
(2) For the Loosahatchie River and Clear Creek, the buffer zone shall coincide with the FEMA floodway.
(3) These dimensions apply everywhere except along streams designated for a proposed greenway trail (see below).
(4) In general, ditches draining up to 100 acres (+/-) will be improved by installation of pipe, or other permanent stabilization measures as approved by the Town Engineer.

2. No clearing, filling or modification of the waterway buffer zone shall be done without written approval from TDEC and the Town of Arlington.

3. In residential developments, the buffer zone shall be designated as Common Open Space, to be owned and maintained by a Homeowner's Association. Buffer zones shall not be a portion of any residential lot.

4. In commercial and industrial developments, the buffer zone shall be part of the commercial or industrial lot. The buffer zone shall be covered by an easement prohibiting any modification or development of this area.

5. The Town of Arlington has developed a proposed greenway pedestrian trail master plan along various streams or waters of the state. These greenway streams shown on this map shall require dedication to the Town of Arlington, a minimum of 100 feet on each side of the stream, measured from the top of bank.

APPENDIX B

INSPECTION AND MAINTENANCE AGREEMENT FOR PRIVATE STORMWATER MANAGEMENT FACILITIES

Property Identification ("Property"):

Map: _____ Parcel No. _____
Record Book: _____ Page No. _____

Project Name: _____
Project Address: _____
Owner(s): _____
Owner Address: _____
City: _____ State:_____ Zip Code: _____

SEE LEGAL DESCRIPTION ATTACHED HERETO AS EXHIBIT A.

This Inspection and Maintenance Agreement ("Agreement") is made this ____ day of _____, 20__, by and between _____ ("Owner", whether one or more), and the Town of Arlington ("Town").

WHEREAS, the Town is required by federal and state surface water quality regulations and its National Pollutant Discharge Elimination System (NPDES) permit to prevent surface water quality degradation from development or redevelopment activities within its jurisdiction, and the Town has adopted surface water quality regulations as required and such regulations are contained in the Storm Water Management chapter of the Municipal Code; and

WHEREAS the Owner owns the Property identified above and has or will construct certain stormwater management facilities on the Property, and has developed a Stormwater Maintenance Plan (SWMP No. _____), as may be amended from time to time (the "Plan") for the maintenance of those facilities, which the Town has reviewed and approved, and a copy of which will be maintained at the Town. A drawing showing the general area of the facilities covered by the Plan is attached to this Agreement for ease of identification.

THEREFORE, in consideration of the benefits received by the Owner as a result of the approval by the Town of the Plan, the Owner does hereby covenant and agree with the Town as follows:

1. The Owner shall provide adequate long term maintenance and continuation of the stormwater control measures described in the Plan, to ensure that all stormwater facilities are and remain in proper working condition. The Owner shall perform inspection and preventative maintenance activities in accord with the Plan.

2. The Owner shall maintain a copy of the Plan on site, together with a record of inspections and maintenance actions required by the Plan. The Owner shall document the times of

inspections, remedial actions taken to repair, modify or reconstruct the system, the state of control measures, and notification of any planned change in responsibility for the system. The Town may require that the Owner's records be submitted to the Town.

3. If it is later determined that the Town's NPDES permit clearly directs Owners or the Town to manage stormwater treatment systems differently than specified in the Plan, the direction of the NPDES permit shall override the provisions of the Plan.

4. The Owner hereby grants to the Town the right of ingress, egress and access to enter the Property at reasonable times and in a reasonable manner for the purpose of inspecting, operating, installing, constructing, reconstructing, maintaining or repairing the facilities. The Owner hereby grants to the Town the right to install and maintain equipment to monitor or test the performance of the stormwater control system for quality and quantity upon reasonable notice to Owner.

5. If the Town finds that the Owner has not maintained the facilities, the Town may order the Owner to make repairs or improvements to bring the facilities up to the standards set forth in the Plan. If the work is not performed within the time specified by the Town, the Town may enter the property and take any action necessary to maintain or repair the stormwater management facilities; PROVIDED, HOWEVER, that the Town shall in no event be deemed obligated to maintain or repair the stormwater management facilities, and nothing in this Agreement shall ever be construed to impose or create any such obligation on the Town.

6. If the Town incurs expenses in maintaining the stormwater control facilities, and the Owner fails to reimburse the Town for such expenses within 45 days after a written notice, the Town may collect said expenses from the Owner through appropriate legal action, and the Owner shall be liable for the reasonable expenses of collection, including all court costs and attorney fees.

7. The Owner and the Owner's heirs, administrators, executors, assigns, and any other successor in interest shall indemnify and hold the Town harmless from any and all damages, accidents, casualties, occurrences, claims or attorney's fees which might arise or be asserted, in whole or in part, against the Town from the construction, presence, existence, or maintenance of the stormwater control facilities subject to the Plan and this Agreement. In the event a claim is asserted against the Town, its officers, agents or employees, the Town shall notify the Owner, who shall defend at Owner's expense any suit or other claim. If any judgment or claims against the Town shall be allowed, the Owner shall pay all costs and expenses in connection therewith. The Town will not indemnify, defend or hold harmless in any fashion the Owner from any claims arising from any failure, regardless of any language in any attachment of other document that the Owner may provide.

8. No waiver of any provision of this Agreement shall affect the right of any party thereafter to enforce such provision or to exercise any right or remedy available to it in the event of any other default.

9. The Town, at Owner's expense, shall record this Agreement with the Register of Deeds of Shelby County, Tennessee; this Agreement shall constitute a covenant running with the land, and shall be binding upon the Owner and the Owner's heirs, administrators, executors, assigns, and any other successors in interest.

10. The Owner shall have the facilities inspected in accordance with § 14-309 of the Town's stormwater ordinance and certify to the Town that the constructed facilities conform and purport substantially to the approved Plan. If the constructed condition of the facility or its performance varies significantly from the approved Plan, appropriately revised calculations shall be provided to the Town and the Plan shall be amended accordingly.

11. Owner agrees that the failure to follow the provisions and requirements of the Plan may result in enforcement actions by the Town in accordance with the stormwater ordinance.

12. The Owner agrees that for any systems to be maintained by a property owner's association, deed restrictions and covenants for the subdivision or other development will include mandatory membership in the property owners' association responsible for providing maintenance of the system, will require the association to maintain the stormwater system, will prohibit termination of this covenant by unilateral action of the association, and provide for unpaid dues or assessments to constitute a lien upon the property of an owner upon recording a notice of non-payment.

13. This Agreement must be re-approved and re-executed by the Town if all or a portion of the Property is subdivided or assembled with other property.

Owner: _____ Date: _____
Signature by Individual

Owner: _____ Date: _____
Signature by Individual

State of Tennessee
County of Shelby

Personally appeared before me, the undersigned Notary Public of the state and county mentioned, _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and executed this Agreement (Inspection and Maintenance Agreement for Private Stormwater Management Facilities) for the purposes contained herein.

Witness my hand and official seal at office, this _____ day of _____, of the year _____.

Notary Public: _____

My Commission Expires: _____

Accepted by:

_____
For the Town of Arlington

State of Tennessee
County of Shelby

Personally appeared before me, the undersigned Notary Public of the state and county mentioned, _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and executed this Agreement (Inspection and Maintenance Agreement for Private Stormwater Management Facilities) on behalf of the Town of Arlington for the purposes contained herein.

Witness my hand and official seal at office, this _____ day of _____, of the year _____.

Notary Public: _____

My Commission Expires: _____

Town of Arlington

MS4 Annual Report

2015 – 2016

Organizational Chart

Town of Arlington
MS4 Stormwater Program
Organization Chart