

Colonial Heights MS4 Annual Report 2014

Stormwater Management Program

October 1, 2014

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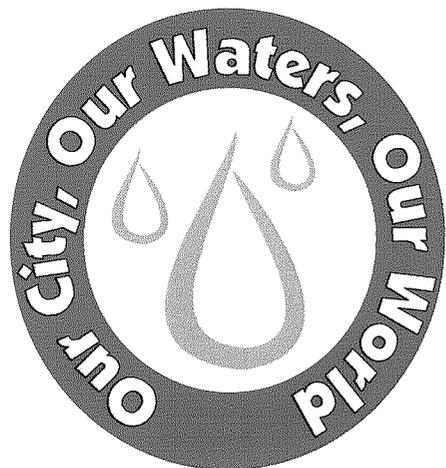


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a. Background Information

1. Colonial Heights Municipal Separate Storm Sewer System - VA040009
2. This annual report covers the period of July 1, 2013 through June 30, 2014.
3. Per a Consent Special Order issued to the City by the Soil & Water Conservation Board on October 8, 2009, the City hired a MS4 Coordinator on August 6 of 2008 and appointed a Stormwater Forman from existing Department of Public Works (DPW) personnel. These roles and their concurrent responsibilities have not been modified since that time.
4. Zero (0) new municipal outfalls were added during this reporting cycle.
5. Signed certification (see last page of this report)

b. Status of Compliance

As part of the Consent Special Order issued the City, the Soil & Water Conservation Board accepted an MS4 Implementation Plan submitted by Colonial Heights that proposed, detailed and scheduled the BMPs Colonial Heights would implement during the permit period.

Attached as **Appendix A** is an Excel® spreadsheet tracking version of that Plan showing the Fiscal Year 1 BMP goals. Please see that appendix for a complete understanding of the status of compliance of the Colonial Heights permit.

c. Monitoring Data

Attached as **Appendix B** of this report is BMP data for all known BMPs in the City. Type, drainage area, owner information and operation and maintenance (O&M) status is determined for all known BMPs. O&M Inspections are then administered accordingly per this BMP Data Monitoring log.

Attached as **Appendix C** of this report are copies of the illicit discharge and dry-weather screening mechanisms utilized by the City's stormwater program. Paper recordation is used for these as they are conducted in the field.

d. Reporting Cycle 5 - July 1, 2014 through June 30, 2015

Please see **Appendix D** of this report for the next reporting cycle's goals.

e. Minimum Control Measure (MCM) Changes

All MCM change explanations are located in the "REVISED OR ALTERED" column of **Appendix A**.

f. Not applicable to VA040009

g. Not applicable to VA040009

h. Estimated discharge information pursuant to Section I B 9 may be found in **Appendix G+H**

i. Illicit Discharge(s) Control

Colonial Heights City Code, per §245 (ORDINANCE NO. 09-1, adopted March 11, 2009), authorizes the Department of Public Works to enforce the prohibition of illicit discharges and illegal connections. Via that ordinance, DPW may determine a deadline by which an illicit discharge must be corrected, and otherwise may correct the situation itself at the sole cost of the responsible party and/or land owner. Civil and criminal penalties are prescribed for willful, knowing violations.

In conjunction with the passage of this ordinance, an illicit discharge hotline was established during the first reporting year. See **Appendix E** for an explanation of the recorded incidents for this reporting period. In conjunction with these, **Appendix E**

j. Regulated Land Disturbing Activities

Attached as **Appendix F** is the regulated land disturbing activity data for this reporting cycle. The data reflects the information as compiled in the land disturbance activity reports as sent monthly to DCR.

k. Stormwater Management Facility Data

Attached as **Appendix B** is an Excel® spreadsheet containing data for all the stormwater management facilities in the City. All of the facilities for which Maintenance Agreements exist are inspected, per the terms of the agreements, by a Professional Engineer on a two-year cycle. Note that this is a change from the three-year frequency as before required, increased in an effort to ensure BMP design performance. Copies of archived Maintenance Inspection Records are archived with the City's DPW-Engineering Division personnel.

l. Maintenance Agreements

Maintenance Agreements for all of the structural stormwater facilities as noted in Section K exist between the City and the respective private entity. The agreements require the owner to have operations and maintenance inspections conducted by a professional engineer on a two-year schedule. The owner is then responsible for documenting the results of that report with the City, via a completed Operation and Maintenance Inspection Record, and is responsible for any necessary repairs. An example Operation and Maintenance Record is provided in **Appendix B**.

m. Not applicable during this reporting cycle

Municipal Separate Storm Sewer System (MS4) Phase II Report Certification Statement

As required by 9VAC25-870-370 B, all reports required by state permits, and other information requested by the board, shall be signed by a responsible official or by a duly authorized representative of that person. A responsible official is:

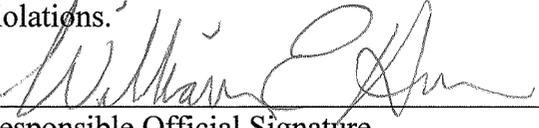
1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for state permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
3. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and
3. The written authorization is submitted to the department.

CERTIFICATION

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

 10-1-14
Responsible Official Signature Date

VA040009 City of Colonial Heights, Virginia
Permit Number MS4 Name

MCM	PROPOSED BMP	TASK	MEASURABLE GOAL\ANTICIPATED ACHIEVEMENT	QTR	ACTION TAKEN	REVISED OR ALTERED	REF
#1: Public Education and Outreach on Stormwater Impacts	1.1.1. Lawn and Garden Activities	Information will be included in <i>The City Focus</i> addressing appropriate landscape design, efficient irrigation, use of mulches, fertilizers, and pesticides. The City Focus is a City wide newsletter published in January, May, July and October.	Information on landscape design and fertilizer to be provided in May of each year. Information on mulch and efficient irrigation to be provided in May. Information on pesticides to be provided in July. <i>Use of harmful pesticides and fertilizers will be minimized by educating how water conservation techniques will be provided to homeowners.</i>	Q4	<i>Developing a Stormwater-friendly Lawn</i> is part of the seasonal stormwater literature offered as a permanent feature of the City's stormwater website.		1
#1: Public Education and Outreach on Stormwater Impacts	1.1.2. Water Conservation Practices for Homeowners	Provide information on city website and in <i>The City Focus</i> to advise public about water conservation practices. Provide links on City website to organizations that promote conservation practices.	Information to be provided in the Spring of each year and as necessary in drought conditions. <i>Water conservation techniques will be identified to homeowners.</i>	Q4	<i>10 Easy Ways to Conserve Water</i> is part of the seasonal stormwater literature offered as a permanent feature of the City's stormwater website.		2
#1: Public Education and Outreach on Stormwater Impacts	1.1.3. Proper Disposal of Hazardous Wastes	Provide information on city website and in <i>The City Focus</i> about the household hazardous waste pick up points and reasons to dispose of hazardous waste properly.	Information to be provided in the Fall of each year. <i>Homeowners will be educated on how to dispose of hazardous wastes properly.</i>	Q2	<i>Our Hazardous Households</i> is part of the seasonal stormwater literature offered as a permanent feature of the City's stormwater website.		3
#1: Public Education and Outreach on Stormwater Impacts	1.1.4. Trash Management	Provide information on city website and in <i>The City Focus</i> to inform public about benefits of proper trash management and effects of littering.	Information to be provided in Fall of each year. <i>Homeowners will be aware of problems associated with improper trash disposal (flooding, health hazards, etc.)</i>	Q2	Incorporated under 1.1.3; see associated Reference.		
#1: Public Education and Outreach on Stormwater Impacts	1.1.5. Pet Waste Management	Provide information on city website and in <i>The City Focus</i> to inform public about impacts of pet wastes to the environment. Post signs at City parks to address pet waste disposal. Provide waste disposal bags at city parks.	Information to be provided in the Spring of each year. Signs currently posted. Currently provided and will continue. <i>Owner will be aware of legal responsibility to remove pet wastes from City property and will use waste disposal bags to contain pet wastes.</i>	Q4	Signs and disposal containers are posted and present at all City parks.		4
#1: Public Education and Outreach on Stormwater Impacts	1.2.2. Develop a Relationship with Local Media	Identify local media staff and send them information generated.	Identify and review annually. <i>Get media involved.</i>	Q4	Costs for PSAs through TV and Radio were prohibitive. SWMP administration is investigating industry methods for PSAs that are less costly.		
#1: Public Education and Outreach on Stormwater Impacts	1.2.3. Classroom Education on Stormwater	Review curriculum for sixth grade students addressing natural resource management and its relation to public policy and cost/benefit tradeoffs as defined by SOL guidelines consistent with grade level. Target a select school in first year and evaluate for expansion.	Curriculum to be developed and used annually. <i>Children will learn about water conservation and environmental impacts caused by improper waste disposal and misuse of household products.</i>	Q2	As the <i>Greener Ways, Cleaner Bays</i> initiative has yet to receive funding, SWMP administration is developing opportunities with school staff that meets SOL guidelines. The materials associated to Task 2.1.3 are being tailored to meet SOL guidelines.		
#1: Public Education and Outreach on Stormwater Impacts	1.2.4. Organized Education on Stormwater	Identify two (2) target audiences who would benefit from organized education programs. Potential groups include the Boy and Girl Scouts.	Make contact with two (2) youth group leaders and explore target education programs. <i>Children will learn about environmental impacts of improper waste disposal and will learn to take responsibility for their environment.</i>	Q1	In addition to the <i>Greener Ways, Cleaner Bays</i> initiative that continues to seek funding, the City has initiated a partnership with the local Boy Scout troop for Stormwater Education programs\presentations.		
#1: Public Education and Outreach on Stormwater Impacts	1.3.1. Low Impact Development	Encourage developers and planners to apply low impact development practices (LID) Establish guidelines in plan review process for voluntary consideration applicable BMP measures for new development	Establish guidelines, record contact with developer and estimate number of acres developed with LID annually. <i>Low-impact development practices will be considered and used by builder to minimize development impacts</i>	O N G O I N G	In addition to LID Guidance documents, the City is developing a Stormwater Utility Fee Credit Policy to accompany its recently established Stormwater Utility Fee.The Credit Policy is scheduled for discussion during Fall '14 council sessions and contains financial incentives for LID.		5
#1: Public Education and Outreach on Stormwater Impacts	1.4.1. Pollution Prevention Program for Homeowners	Formalize pollution prevention hotline to report problems and/or illicit discharge and notify the public of the hotline number and conditions they should be aware of.	Develop hotline to appear permanently on and in <i>The City Focus</i> . <i>Citizens will be able to notify appropriate City personnel of violations and unfavorable conditions</i>	O N G O Q I N G -	The City has had a fully functional Pollution Prevention Hotline and an electronic reporting method for reporting polluting activities for two reporting years.	Though the City receives numerous calls reporting polluting activities, the Hotline is not widely used. SWMP administration is currently investing industry methods for making it more accessible.	6

MCM	PROPOSED BMP	TASK	MEASURABLE GOAL/ANTICIPATED ACHIEVEMENT	QTR	ACTION TAKEN	REVISED OR ALTERED	REF
#1: Public Education and Outreach on Stormwater Impacts	1.4.2. Pollution Prevention for Businesses	Establish guidelines for a pollution prevention and recognition program tailored for the business community and annually provide information to business owners through a brochure or the City's newsletter.	Establish a formal pollution prevention program that provides guidelines for the business community to follow and obtain public recognition. <i>Recognition of pollution prevention efforts and environmental responsibility will provide an incentive for the business community to cooperate with proper storm water management.</i>	Q1	<i>Our Waters Award</i> program, as mentioned in last year's report, is scheduled to be adopted as an incentive component of the Stormwater Utility Fee.		7
#2: Public Involvement/Participation	2.1.1. Stream Cleanup	Involve Boy and Girl Scout troops or other non-municipal organizations in cleanup efforts along streams and rivers. Encourage Scout masters to involve troop participation to meet goals consistent with the Boy Scout Forestry, and Soil and Water Conservation	Meet annually in Fall with Boy and Girl Scoutmasters / troop leaders or other non-municipal organizations to schedule annual clean up day along streams and rivers. <i>Children/Citizens will learn about environmental impacts of improper waste disposal.</i>	Q2	See 1.2.4 above and 2.1.2 below.		
#2: Public Involvement/Participation	2.1.2. Adopt-A-Street/Adopt-A-Stream	Encourage residents and groups to adopt streets and areas along streams and rivers for clean up and volunteer monitoring and identify which stream is the recipient of runoff from the adopted street. Develop a program to distribute to interested groups.	Inform public biannually through website and <i>The City Focus</i> of streets available for adoption. <i>Public will help keep streets and streams free of debris and identify with the program.</i>	Q 2 & Q 4		SWMP administration proposed an Adopt-A-Waterway program during the previous reporting year. City Council has since debated and continues to debate the utility of Adopt-A programs and has delayed action on implementation of the Adopt-A-Waterway program.	8
#2: Public Involvement/Participation	2.1.3. Public Programs in Schools	Encourage school children to create educational displays for public libraries and schools addressing stormwater pollution and control measures. Set up meetings and offer assistance to school science coordinator. Public Works to provide oversight and coordination.	Meet with Science coordinator annually. Consider creation of displays for August (National Water Quality Month). <i>Children will learn about stormwater impacts and ways that they can improve their environment.</i>	Q2	The City's <i>Greener Ways, Cleaner Bays</i> initiative as previously developed is still seeking funding. A coloring and activity book were developed for the K through 3 levels, and a trivia/activity poster were developed for the 4 through 6 levels. These materials are also available on the City's Stormwater 4 Kids webpage.		9
#3: Illicit Discharge Detection and Elimination	3.1.1. Review of Legal Authority	Assess City ordinance to ensure illicit discharges are adequately defined and prohibited. Ensure enforcement actions are implemented.	Revise ordinance as needed and review annually. (High Priority)	O N G O I N G	Slight changes were made to the City's Stormwater Ordinance per a Code rewrite. See the associated Reference for the updated version of the Ordinance.	<i>The city continues to evaluate the Stormwater Ordinance and is investigating methods to encourage continued compliance.</i>	10
#3: Illicit Discharge Detection and Elimination	3.2.1. Inventory Regulated Stormwater Outfall Locations	Using existing map and fieldwork, establish program and schedule for inventory and data base development.	Existing regulated outfalls will be identified for annual inspection and illicit discharge tracking. <i>Create map of regulated outfalls.</i> The City's 2003 inventory included approximately 40 outfalls to waterways and 600 inlets.	O N G O Q I 1 N G -	Incorporated under 3.2.2		11
#3: Illicit Discharge Detection and Elimination	3.2.2. Map Regulated Outfalls and their Drainage Areas	Using existing mapping and continuing to do field work, refine and increase accuracy and detail of stormwater drainage system maps.	Create mapping delineating drainage areas associate with regulated outfalls. <i>Areas contributing to runoff will be identified.</i>	O N G O Q I 1 N G -	All outfalls will be inspected once per year and repairs shall be made per those findings. Drainage basins were completed per the City's Stormwater Utility Fee Feasibility Study and have been functionally in use since then.		12
#3: Illicit Discharge Detection and Elimination	3.2.3. Locate Priority Area or Businesses Likely to have an Illicit Discharge	Using staff knowledge and available information develop a list of areas and businesses that would have a significant impact if a spill occurred or would have a high probability of having an accidental spill (ie auto repair shop restaurant and other industrial activities).	Create mapping of priority areas with unique pollution prevention schemes. <i>Areas that are possible sources of detrimental pollutants will be identified and monitored of possible problems.</i>	Q1	Database is in use and is utilized in PE&O, IDDE and for the City's watershed planning initiative.		13
#3: Illicit Discharge Detection and Elimination	3.2.4. Inspect Regulated Outfalls for Dry Weather Discharge	Develop a program to use in the inspection to include visual observation, odors and conditions that would indicate illicit discharges. Schedule and forms to document the program will be included.	Inspect all regulated outfalls annually. <i>Dry weather discharges will be identified and appropriate action taken.</i>	Q3	All regulated outfalls were inspected, where appropriate dry weather screenings were conducted. See Appendix C.		

MCM	PROPOSED BMP	TASK	MEASURABLE GOAL/ANTICIPATED ACHIEVEMENT	QTR	ACTION TAKEN	REVISED OR ALTERED	REF
#3: Illicit Discharge Detection and Elimination	3.3.2. Program Evaluation and Assessment	Develop a formal record-keeping procedure to document identification of illicit discharge and the steps taken to address the situation. Record keeping will be consistent with DCR reporting requirements in VA040009.	Annual review by City Staff. <i>Historic records addressing illicit discharge detection and elimination will be maintained and can be used for program evaluation.</i>	O N G - O Q I 1 N	See Appendix E.		
#3: Illicit Discharge Detection and Elimination	3.4.1. Illicit Discharge Education for Residences	Develop public education pollution prevention handouts to address illicit discharges from residences. Suggested topics include Household Hazardous Waste, Grass Clippings and Pesticides. Prepare 1 per year or as need is shown. Coordinate with 1.1 and 1.4	Provide on city forms to residents addressing household hazardous waste and impact to stormwater. <i>Homeowners will dispose of household hazardous wastes properly.</i>	Q3	As mentioned, the publications listed under this task are a regular fixture in the City's SWMP literature. SWMP administration has developed a promotional refrigerator magnet that is slated for purchase and dissemination this reporting cycle.		
#3: Illicit Discharge Detection and Elimination	3.4.2. Illicit Discharge Education for Businesses	Develop public education pollution prevention handouts to address illicit discharges from specific businesses. Suggested businesses include Auto Repair, Dry Cleaners and Restaurants. Prepare 1 per year or as need is shown. Coordinate with 1.4.2	Provide handouts to businesses addressing illicit discharges from their specific business and impact to stormwater. <i>Business will dispose of hazardous wastes and minimize use of hazardous or toxic materials.</i>	Q4	Disseminated once per year and an ongoing feature of the Stormwater website.		14
#4: Construction Site Stormwater Runoff Control	4.1.1. Evaluate Current Ordinance and Method of Site Plan Review Using DCR Guidelines	Review current City of Colonial Heights ordinances, policies and procedures for reviewing E&S Control plans submitted in conjunction with the Site Plan review. Compare the City practices with those of other Virginia municipalities and the industry standards. Attention will be given to Ordinance 92-6, requiring VSMPs and other applicable regulations.	Compile, create, and publish a standard operating procedure for the review of E&S Control Plans. Refine E&S Control Plan review and publish definitive SOP	Q4	Currently used; see associated reference.		15
#4: Construction Site Stormwater Runoff Control	4.1.2. Revise Ordinance Pertaining to Site Plan Review Including Construction Waste	Revise and introduce legislation to City Council as needed and identified in 4.1.1	Development and adaptation of ordinance. <i>Uniform application of regulation.</i>	Q1	The City Ordinance and the Department's Plan Review Checklist address the Task in various ways. See the associated Reference and Reference 15 for detail.		15 & 15(A)
#4: Construction Site Stormwater Runoff Control	4.1.3. Develop Standards and Design Procedures for Site Plan Design	Review current City of Colonial Heights approved E&S Control methods guidance. Develop guidance specific to City topography and development practices, as to how and when each E&S Control method should be used. Include minimized Clearing, Stabilized Drainage Ways, Stabilized Exposed Soils,	Create regulations that provide City Staff with clear guidance. Simplify site plan design as it relates to erosion control	Q3			
#4: Construction Site Stormwater Runoff Control	4.2.1. Develop Internal Checklist for Reviewers for Consistency	Collect and review other jurisdictions compared to Colonial Heights and develop internal checklist for reviewers. Consider adopting DCR checklist.	Development of internal checklist for reviewers. Internal checklist for reviewers creates consistency in the review process.	Q2			
#4: Construction Site Stormwater Runoff Control	4.2.2. Publish guidance documents on E&S Control Plan Inspections	Review, revise and publish current inspection procedures for E&S Control Plans.	Create and publish standard E&S Control Inspection Checklists. Provide best practices guidance to City staff performing E&S site inspections	Q2			
#4: Construction Site Stormwater Runoff Control	4.3.1. Training of City Staff for E&S Management and Site Plan Review	Select city site review staff members for training and certification in Virginia Department of Conservation (DCR) and Recreation E&S Control in Virginia for Plan Reviewers.	Provide opportunity for training and certification to new employees within 1 year of employment. Improves understanding of inspections on BMPs and E&S Procedure.	O N G - O Q I 1	One (1) Senior Engineering Technician was hired and will undergo E&S training and certification in December 2014, all present staff have current Plan Reviewer Certifications.		16

MCM	PROPOSED BMP	TASK	MEASURABLE GOAL\ANTICIPATED ACHIEVEMENT	QTR	ACTION TAKEN	REVISED OR ALTERED	REF
#4: Construction Site Stormwater Runoff Control	4.3.2. Training and Certification of E&S Construction Site Inspectors	Select city site review staff members of training and certification in (DCR) E&S Control in Virginia for Plan Inspectors.	Provide opportunity for training and certification to new employees within 1 year of employment. Improves understanding of inspections on BMPs and E&S procedure.	O N G - O Q I 1 N	No new staff was hired and all present staff have current Inspector Certifications. Additional staff attended various Stormwater classes provided by APWA		16
#4: Construction Site Stormwater Runoff Control	4.3.3. Coordination with Other Staff	Develop scheduled periodic meetings with Site Reviewers, Inspectors, GIS staff, and Public Works staff to discuss modifications to benefit programs.	Schedule meeting annually. <i>Continuously improve program for effectiveness.</i>	Q3	Revised previous to last reporting cycle. Documentation sheet is used regularly.		17
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.2.1. Review and Evaluate Current Technology	Evaluate current methods being used and select those applicable for Colonial Heights.	Develop list of methods. Allow developers to consider alternatives.	Q2			
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.2.3. Evaluate and Update by Inspection of Construction Sites and Literature Review	Review literature for new techniques. Inspect sites with non-structural controls and evaluate effectiveness. Update guidelines as required.	Inspect site and revise guidelines every 3 years. Annual reporting of results allows successes and failures to be identified to improve cost effectiveness.	Q4	Reviewed literature from various municipalities and regulatory agencies. Material will be utilized in BMP inspection guidance documents to be compiled with future goals, as considered in LID initiative (see annual report Section [e]).		18
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.2.4. Develop and Maintain an inventory of structural BMPs	Establish an inventory of structural BMPs to include type, order required O&M, inspection frequency, and locations of facilities constructed after 2003. Identify previously constructed non-structural BMPs as data becomes available	Develop and maintain data base. Ensure tracking of BMPs and their effectiveness.	Q3	Inventory created and utilized in O&M enforcement.		
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.3.1. Review & Evaluate Current Technology	Review and evaluate current technologies for structural BMP's for new and redeveloped situations being used in other localities and select those applicable to Colonial Heights.	Evaluate current methods being used and select those applicable for Colonial Heights. Improve rate of success.	Q4	Literature review complete. Publications utilized include EPA's National Menu of BMPs and CWP's Extreme BMP Makeover.		
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.3.3 Develop Inspection Procedures for Structural BMPs	Evaluate procedures used by others and prepare checklist, logs and methodology to inspect the selected types of BMPs. Develop inspection schedule for determining frequency. Include method for putting data into a database. Include a measurement for determining effectiveness.	Conduct inspections as per schedule and maintain inspection on file. Determine structural conditions and effectiveness.				
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.3.4. Develop and Maintain Inventory of Structural BMP's	Coordinate with mapping to establish an inventory of structural BMP's to include type, owner required O & M, inspection frequency, and location.	Develop and maintain data base. BMPs and map updates annual after initial completion.		Complete; see associated Reference.		19
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.4.1. Training of City Staff for Site Plan Review and Field Inspections	Select staff members for training and certification of city staff using DCR course "Basic E & S Control in Virginia"	Provide opportunity for certification for new employees within 1 year of employment. <i>Improves understanding of inspections on BMPs and E&S procedure.</i>	O N G O Q I 1 N G -	See 4.3.2		

MCM	PROPOSED BMP	TASK	MEASURABLE GOAL/ANTICIPATED ACHIEVEMENT	QTR	ACTION TAKEN	REVISED OR ALTERED	REF
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.4.2 Coordination with Other Staff	Develop scheduled periodic meetings with Site Reviewers, Inspectors, GIS staff, and Public Works staff to discuss modifications to benefit programs.	Schedule meeting annually. Continuously improve program for effectiveness.		See 4.3.3		
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.1.4. Personnel Training	Train operations personnel in pollution prevention measures.	Record annual training schedules and number and department of personnel. <i>City will ensure that all personnel are adequately informed of pollution prevention measures.</i>	Q3	Training has been implemented; see associated reference.		20 & 21
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.2.1. Parking Lot and Street Cleaning	One full time sweeper to clean all curb and gutter streets once a year.	Develop mapping to indicate streets cleaned and tonnage picked up. <i>City will track and evaluate current street cleaning routine and identify problem areas.</i>	O N G - O Q I 1 N	859.5 Cubic yards of debris were removed this reporting year.		22
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.2.2. Personnel Training	Evaluate inlet protection, erosion, and sediment control measures in road, utility, and bridge maintenance and train staff on methods.	Meet with 25% of required personnel on annual basis for training on current erosion and sediment control measures. <i>City personnel will employ current water quality measures for road, utility, and bridge maintenance.</i>	Q4	See 6.1.4		
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.3.1. Storm Drain Intake System Cleaning	Using City field crews and equipment, clean curb inlets, catch basins and manholes in the stormwater drainage system.	Clean 25% of storm structures per year. Record for historic data on database. <i>Reduces volume of solids in stormwater.</i>	O N G - O Q I 1 N	As a component of the City's inventory and mapping initiative, all inlets and structures that were mapped were also cleaned. An estimated 200 of the City's 450(+) inlets were cleaned this reporting cycle.		
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.3.3. Stormwater Complaint File and History	Develop system to track and maintain historical data.	Review data annually. <i>Detection of failing or undersized systems.</i>	O N G - O Q I 1 N	See associated Reference. Utilized to determine one undersized system this year. System is now placed on Capital Improvement list for upgrade.		23
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.4.1. Hazardous Materials Storage and Management	Evaluate storage locations and method of storing hazardous materials by EPA guidelines.	Record locations and methods of hazardous materials storage on map layer and database and inspect storage facilities annually. <i>Ensure hazardous materials storage containment is adequate.</i>	Q4	Completed last reporting year; see associated Reference.		24
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.4.2. Salt Storage	Evaluate application and method of storing road salt.	Record application locations and methods of storage in layer and database. Inspect storage facilities annually. <i>Ensure salt storage is adequate.</i>	Q3	See Reference 22. During nine (9) snow events this reporting year, salt and sand admixture was spread on all City streets.		22
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.4.3. Oil and Antifreeze Recycling	Evaluate used oil and antifreeze recycling methods.	Record used oil and used antifreeze recycling programs and amount collected to assess efficiency of current programs annually. <i>Ensure current programs are adequate.</i>	O N G - O Q I 1 N	Incorporated under Superintendent Report initiative. Comprehensive reporting going forward will ensure task control and delivery.		

SWM ID	Facility Name	Facility Address	Owner\Designee	Owner\Designee Mailing	Owner\Designee City	Owner\Designee State
BMP-0001	City of Colonial Heights	201 James Avenue	City	201 James Avenue	Colonial Heights	VA
BMP-0002	City of Colonial Heights	1209 Covington Road (behind)	City	201 James Avenue	Colonial Heights	VA
BMP-0003	City of Colonial Heights	Lee Place & Danville Ave	City	201 James Avenue	Colonial Heights	VA
BMP-0004	City of Colonial Heights	Archer Avenue at MLK Bridge	City	201 James Avenue	Colonial Heights	VA
BMP-0005	City of Colonial Heights	Chesterfield Avenue at Marvin Avenue	City	201 James Avenue	Colonial Heights	VA
BMP-0006	City of Colonial Heights	100 Highland Avenue	City	201 James Avenue	Colonial Heights	VA
BMP-0007	Boulevard Flowers	111 Pickett Avenue	Charles H. Aters, IV	206 Woodbridge Road	Colonial Heights	VA
BMP-0008	Carlton's Auto Service	116 Taswell Avenue	McGlone, Clifford	6217 Matoaca Rd	Petersburg	VA
BMP-0009	CHMS (additions; staff parking lot)	500 Conduit Road	School Board	512 Boulevard	Colonial Heights	VA
BMP-0010	Clements Retail Center (formerly)	3522 Boulevard	Jones Jr., Norris	16925 Jefferson Davis Hwy	Colonial Heights	VA
BMP-0011	Colonial Car Wash	3224 Boulevard	FD & B Enterprises, LLC	1377 Anderson Hwy	Powhatan	VA
BMP-0012	Lakeview Maintenance Bldg.	401 Taswell Avenue	School Board	512 Boulevard	Colonial Heights	VA
BMP-0013	Colonial Shell (Country Store)	3220 Boulevard	BDSB, LLC	P.O. Box 29317	Richmond	VA
BMP-0014	Creek View Center	3660 Boulevard	Creek View Centre, LLC	PO Box 23061	Richmond	VA
BMP-0015	Dominion Chevrolet	325 Charles H. Dimmock Parkway	J. Theodore Linhart, Dominion Auto Group	12050 West Broad St.	Richmond	VA
BMP-0016	Dominion Nissan	445 Charles H. Dimmock Parkway	J. Theodore Linhart, Dominion Auto Group	12050 West Broad St.	Richmond	VA
BMP-0017	Dr. Richard Bates, DDS	3610 Boulevard	Dr. Richard Bates	3610 Boulevard	Colonial Heights	VA
BMP-0018	Dunlop Farms Senior Apartments	1000 Dunlop Place	Mr. Lanny Redden, APTCO East, LLC	21400 Ridgetop Circle, Ste 250	Sterling	VA
BMP-0019	Gilcreff Place Subdivision	Dunlop Farms Boulevard	Gilbert Martin	117 Roanoke Avenue	Colonial Heights	VA
BMP-0020	Gills Point Section 9	Conduit Road	Bernard A. Hrouda c/o Gills Point Development Corp.	1001 Taylor Lane	Colonial Heights	VA
BMP-0021	Hardee's	1850 Boulevard	BNE Restaurant Group IV LLC c/o RASH #56-46-28160	PO Box 260888	Plano	TX
BMP-0022	Home Depot #4633	2600 Conduit Road	Sammy Boehms, Home Depot USA, Inc	2455 Paces Ferry Rd.	Atlanta	GA
BMP-0023	J.W. Humphries, Lot 2	107 Jackson Avenue	J.W. Humphries	127 Boulevard	Colonial Heights	VA
BMP-0024	Jones Office Building	2306 Boulevard	Mr. Norris E. Jones	16925 Jefferson Davis Hwy	Colonial Heights	VA
BMP-0025	Laurel Park Office Building	2421 Boulevard	Jones Realty & Construction Corporation	9800 JEB Stuart Parkway, Ste 200	Glen Allen	VA
BMP-0026	Laurel Park Parking Facility	2421 Boulevard	Jones Realty & Construction Corporation	9800 JEB Stuart Parkway, Ste 200	Glen Allen	VA
BMP-0027	McDonald's	411 Southpark Circle	Faison Associates	121 W Trade St., Ste 2700	Charlotte	NC
BMP-0028	Mekhoubat Office Building	107 W Ellerslie	Mekhoubat Properties, Inc	P.O. Box 276	Colonial Heights	VA
BMP-0029	Merchants Tire & Auto	773 Southpark Boulevard	Kosmakos Properties, LLC	11101 Hampton Rd	Fairfax Station	VA
BMP-0030	MIDAS	1400 Boulevard	TMT, LLC	11463 West Broad St.	Richmond	VA
BMP-0031	Movie Time	2900 Cedar Lane	88, LLC	P.O. Box 71150	Richmond	VA
BMP-0032	Mt. Pleasant Baptist Church	3110 Greenwood Avenue	Rob McIntosh c/o MPBC	3110 Greenwood Avenue	Colonial Heights	VA
BMP-0033	Mt. Pleasant Baptist playground	3110 Greenwood Avenue	Rob McIntosh c/o MPBC	3110 Greenwood Avenue	Colonial Heights	VA
BMP-0034	Mt. Pleasant Baptist parking lot extension	3110 Greenwood Avenue	Rob McIntosh c/o MPBC	3110 Greenwood Avenue	Colonial Heights	VA
BMP-0035	Old Towne Center	2801 Boulevard	Multiple tenants	N/A		
BMP-0036	Olive Garden	801 South Avenue	Mr. Nick Patel, Kaylan Plaza II	931 South Avenue		
BMP-0037	Outback Steakhouse	165 Southpark Circle	(Robert Basham, COO) / Mr. Jamie Butler c/o Outback Steakhouse	Outback Steakhouse, 2202 North Westshore Boulevard, 5th Floor	Tampa	FL
BMP-0038	Over The Edge	3635 Boulevard	William K. Thibault	3635 Boulevard	Colonial Heights	VA
BMP-0039	Park South Business Park	798 Southpark Boulevard	Faison Associates	121 West Trade Street, Ste 2550	Charlotte	NC
BMP-0040	Peoples Advantage Credit Union	2801 Conduit Road	Audrey L. Bollinger, President	2801 Conduit Road	Colonial Heights	VA
BMP-0041	Pizza Hut Delivery	714 Ellerslie Avenue	GE Capital Franchise Finance	8377 E Hartford Dr., Ste 200	Scottsdale	AZ
BMP-0042	Prospect Heights Subdivision	214 Clover Hill Avenue				
BMP-0043	Rite Aid #4820	3210 Boulevard	Mr. Jeff Hansen	291 N Main St.	Amherst	VA
BMP-0044	Riverview Apartments	205 Archer Avenue	RV Limited Partnership c/o VA Housing Development Authority	13195 Warwick Boulevard, Ste 1F	Newport News	VA
BMP-0045	Sam's Club	735 Southpark Boulevard	Store Manager	735 Southpark Boulevard	Colonial Heights	VA
BMP-0046	Sheetz	2711 Conduit Road	Randall A. Sheetz, Sheetz, Inc.	5700 6th Avenue	Altoona	PA
BMP-0047	Southside Regional Medical Center	436 Claremont Court	The Cameron Foundation	P.O. Box 3090	Petersburg	VA
BMP-0048	Starbucks	790 Southpark Boulevard	MKIS Enterprise, LLC c/o Sang Park Moon Park & Associates	7617 Little River Turnpike #930	Annandale	VA
BMP-0049	Target Store (#T-1016)	721 Southpark Boulevard	Cindy Swanson - Dayton Hudson Corporation	P.O. Box 9456	Minneapolis	MN
BMP-0050	Temple Lake Offices, Lots 11 & 12	131 Temple Lake Drive	Roslyn Farm Corp.	P.O. Box 727	Colonial Heights	VA
BMP-0051	Terrace View Apartments	200 Lakeview Park Road	H.W. Owens, S.A. Housing, LLP	2717 Willard Rd.	Richmond	VA
BMP-0052	Tussing Elementary	5501 Conduit Road	School Board	512 Boulevard	Colonial Heights	VA
BMP-0053	Virginia Pediatrics (Atreos)	301 Jennick Drive	Dr. Oscar & Amabel Sibal	11904 Hogans Alley	Chester	VA

APPENDIX B

Stormwater Management Facility Data

ANNUAL REPORT 2011

BMP-0054	Waffle House	2002 Boulevard	Raypark, LLC, Jayfair Corp, North Lake Foods Inc-WH #136	PO Box 6450	Norcross	GA
BMP-0055	Walgreens	626 Boulevard	Walgreen Company	104 Wilmot Rd.	Deerfield	IL
BMP-0056	WaWa	604 Boulevard	Property Management	260 Baltimore Pike	Media	PA
BMP-0057	Wesley Methodist Church	3701 Conduit Road	Wesley Methodist Church	3701 Conduit Rd	Colonial Heights	VA
BMP-0058	White Bank Landing, Section II	155 Watercress Court (adjacent)				
BMP-0059	Wilton Property Grading	Ridge at Temple				
BMP-0060	A. Wright Pond Office Building	250 Ellerslie Avenue	A.Wright Pond, DDS	1025 Avon Court	Colonial Heights	VA
BMP-0061	American Family Fitness	930 South Avenue	Roslyn Farm Corporation	320C Charles Dimmock Parkway	Colonial Heights	VA
BMP-0062	Anderson Office Building	200 Lakeview	Don Anderson	PO Box 517	Colonial Heights	VA
BMP-0063	Ariya	3507 Boulevard	Ariya Real Estate	3660 Boulevard, Ste G	Colonial Heights	VA
BMP-0064	Bank of Southside VA	764 Ellerslie Avenue	Property Manager	PO Box 40	Carson	VA
BMP-0065	Behavior & Stress Management Center	3236 Boulevard	Broad Investments, LLC	3236-B Boulevard	Colonial Heights	VA
BMP-0066	Jones Office Building	201 Temple Avenue	Mr. Norris E. Jones	16925 Jefferson Davis Hwy	Colonial Heights	VA
BMP-0067	Colonial Heights Healthcare Center	831 E Ellerslie Avenue	Mario Thompson	831 E Ellerslie Avenue	Colonial Heights	VA
BMP-0068	Colonial Heights Courthouse	550 Boulevard	City	201 James Avenue	Colonial Heights	VA
BMP-0069	EVB Bank	3012 Boulevard	EVB Bank	3012 Boulevard	Colonial Heights	VA

Stormwater Management Facility Data

Owner\Design ee Zip	END 1-YMP	TYPE	CONSTRUCT CERTIFIED	EASEMENT	ACRES BMP'd	Sub-Watershed	H.U.C.	FILE #
23834	Jan-02	BR		N\A	0.6	Oldtown	JA40	100162
23834		CB		N\A	8	Appomattox	JA44	
23834	Jan-99	UD		N\A		Appomattox	JA44	100520
23834	Jan-03	DB		N\A	0.4	Appomattox	JA40	101101
23834	Aug-93	DB \ FL		N\A	0.11	Fleets Branch	JA40	100530
23834	Jan-03	BR		N\A	0.6	Oldtown	JA40	100162
23834	Jan-90	US		YES	0.82	Oldtown	JA44	100001
23803-1589	Jan-96	SW		NO	0.75	Oldtown	JA40	100026
23834	Jan-03	SW		NO	1.2	Appomattox	JA40	100973
23834-5330	Jan-91	US		NO	0.44	Swift Creek	JA44	100040
23139	Jan-00	US \ ST		YES	0.7	Swift Creek	JA44	100006
23834	Sep-11	DB	YES	YES	1.5	Oldtown	JA40	100208
23242	Jan-98	CB \ US		YES	0.79	Swift Creek	JA44	100119
23223-0361	Jan-94	CB		NO	5.86	Swift Creek	JA44	100039
23233	Jan-95	DB		YES	0.56	Appomattox	JA40	100035
23233	Jul-09	DB \ ST		YES	11.03	Appomattox	JA40	100017
23834	Oct-02	DB		YES	0.39	Swift Creek	JA44	100005
20166	Jan-01	CB		YES	5.79	Swift Creek	JA44	100024
23834	Dec-09	DB		YES	6.35	Swift Creek	JA44	100159
23834	Aug-12	DB	YES	YES	1.73	Swift Creek	JA44	100209
75026-0888	Jan-86	SW \ DB		NO	1.62	Oldtown	JA40	100053
30339	Jan-01	DB		YES	13.11	Oldtown	JA40	100054
23834	Jan-96	CB		NO	0.032	Appomattox	JA40	100070
23834-5330	Dec-05	DB		YES	0.12	Oldtown	JA40	100047
23059	Jan-05	DB		YES	0.2	Oldtown	JA40	100138
23059	Jan-08	DB		YES	0.34	Oldtown	JA40	100218
28202-1195	Jan-91	DB		NO	1.15	Oldtown	JA40	100080
23834	Jan-07	DB		YES	0.2	Swift Creek	JA44	100129
22039-2301	Jan-95	DB		NO	1.14	Oldtown	JA40	100068
23233	Jan-02	DB		YES	0.42	Oldtown	JA40	100007
23255	Jan-88	DB		YES	0.08	Oldtown	JA40	file drawer
23834	Jan-98	RCC		NO	2.45	Oldtown	JA40	100067
23834	Jan-09	US \ UI		YES	0.2	Oldtown	JA40	100137
23834	Jun-11	UI		YES	0.83	Oldtown	JA40	100188
	Jan-89	FL		NO	1.26	Oldtown	JA40	101011
	Jun-09	US		YES	0.32	Appomattox	JA40	100183
33607	Jan-00	DB		YES	1.92	Oldtown	JA40	100055
23834	Apr-02	US		YES	1.41	Swift Creek	JA44	100050
28202	Jan-90	DB \ US		YES	14.61	Oldtown	JA40	100073
23834	Jun-05	US		YES	1.3	Oldtown	JA40	100152
85255-5687	Jan-91	DB		NO	0.84	Swift Creek	JA40	100046
	Jan-11	RB	YES	YES	0.5	Oldtown	JA40	100189
24521	Jan-98	DB		YES	1.7	Swift Creek	JA44	100101
23606	Jan-02	DB		YES	6.27	Appomattox	JA40	100083
23834	Jan-94	DB		YES	6.61	Oldtown	JA40	100121
16602	Jan-03	RP		YES	2.09	Oldtown	JA40	100084
23805	Sep-09	DB		YES	5.64	Swift Creek	JA44	100058
22003	Jan-09	US		YES	0.8	Oldtown	JA40	100142
55440	Jan-98	DB		YES	2.7	Appomattox	JA40	100112
23834	Jan-06	CB		NO	1.7	Oldtown	JA40	100127
23294	Jan-98	DB		YES	2.26	Oldtown	JA44	100111
23834	Aug-10	DB	YES	YES	3.66	Appomattox	JA44	100202
23836	Feb-09	DB		YES	1.37	Appomattox	JA40	100128

Stormwater Management Facility Data

30091	Jan-01	US		NO	0.48	Oldtown	JA40	100109
60015-5121	Dec-11	DB	YES	YES	0.32	Appomattox	JA40	100198
19063	Jan-01	DB \ FL		YES	0.32	Fleets Branch	JA40	100107
23834-2631	Jan-93	UD		NO	0.46	Appomattox	JA40	100115
	Jan-96	DB		NO	3.79	Swift Creek	JA44	100430
				NO				100201
23834	Jan-03	RO		YES	0.41	Swift Creek	JA40	100051
23834	Jan-04	DB		YES	32.44	Appomattox	JA40	100002
23834	Jan-96	DB		NO	0.32	Oldtown	JA44	file drawer
23834	Mar-11	US		YES	0.3	Swift Creek	JA44	100191
23830-0040	Jan-93	DB		NO	0.88	Swift Creek	JA40	100012
23834	Jan-88	RO		NO	0.9	Swift Creek	JA44	file drawer
23834-5330	Jan-03	DB		YES	0.44	Oldtown	JA40	100052
23834	Jul-11	DB	YES	YES	6.2	Oldtown	JA40	100886
23834	Oct-14	DB	YES	Yes	4.6	Fleets Branch	JA40	file drawer
23834	May-14	UI	YES	YES	1.6	Swift Creek	JA40	101117
APPROX TOTAL ACRES BMP'd =					179.932			

NOTES

- * *In 1-year maintenance period*
- * *Approved & discontinued or unconstructed*
- * *JA40 - Old Town Creek, Appomattox River*
- * *JA44 - Swift Creek*

LEGEND

- RB = Retention Basin*
- DB = Detention Basin*
- CB = Catch Basin (includes Drop Inlet)*
- UD = Underground Detention*
- RCC = Restrictive Curb Cuts*
- ST = Sediment Trap*
- FL = Flume*
- SW = Swale*
- RO = Restrictive Outlet*
- UI = Underground Infiltration*
- BR = Bioretention*

DATE: 5/7/2014

TIME: 10:12 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-001</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/6/2014

TIME: 10:48 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-002</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input checked="" type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input checked="" type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input checked="" type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: __ inches __ feet Approximate depth of flow: __ inches ____ feet Approximate flow rate: __ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

Jeremy D Moore

REPORTER SIGNATURE: _____



DATE: 5/6/2014

TIME: 10:58 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-003</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input type="checkbox"/> None <input checked="" type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry <input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: __ inches __ feet Approximate depth of flow: __ inches ____ feet Approximate flow rate: __ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

Ponding water

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/6/2014

TIME: 1:54 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-004</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: __ inches __ feet Approximate depth of flow: __ inches ____ feet Approximate flow rate: __ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/22/14

TIME: 10:25 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-005</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
- OUTFALL OBSERVATIONS -		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/15/2014

TIME: 12:05 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-006</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/6/2014

TIME: 1:47 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-007</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input checked="" type="checkbox"/> Other: _____ _____ _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

Ponding

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/22/2014

TIME: 10:55 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-008</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input checked="" type="checkbox"/> Other: _____ Covered by brush dumped by residents.	
FLOATABLES	Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____ <input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/6/2014

TIME: 10:13 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-009</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input checked="" type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/7/2014

TIME: 10:26 AM PM

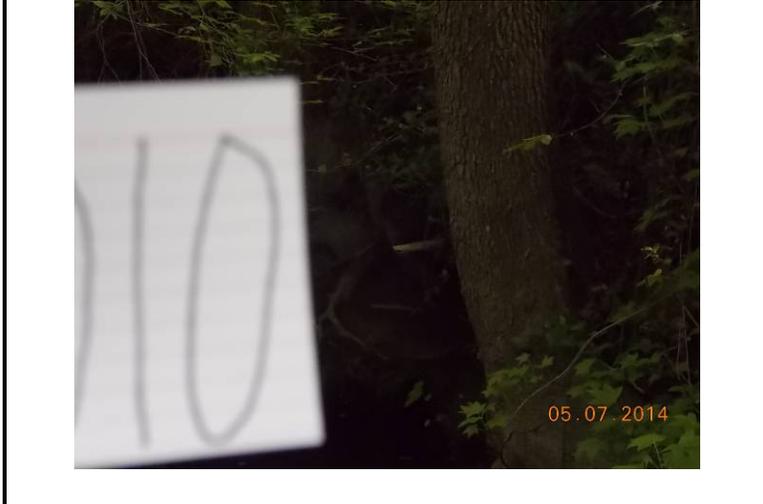
FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-010</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/22/2014

TIME: 1:30 AM PM

FILED BY: A.J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-011</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input checked="" type="checkbox"/> Colored (<i>describe</i>): <u>Green & Gray</u> <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input checked="" type="checkbox"/> Other (<i>describe</i>): <u>Green Car Wash Soap</u>	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/6/2014

TIME: 9:30 AM PM

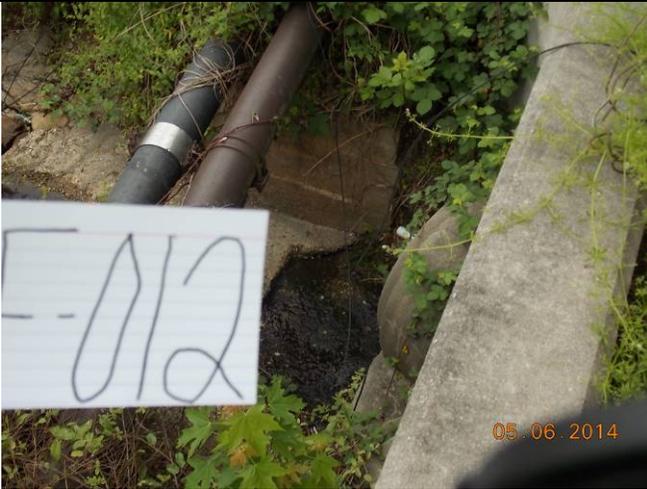
FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-012</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input checked="" type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: <u>6</u> inches <u> </u> feet
	Approximate depth of flow: <u><1</u> inches <u> </u> feet
	Approximate flow rate: <u>2</u> feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/22/2014

TIME: 10:40 AM PM

FILED BY: A.J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-013</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/28/2014

TIME: 9:15 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-014</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches _____ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

Ponding

REPORTER SIGNATURE: _____

Jeremy D Moore



DATE: 5/22/2014

TIME: 10:45 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-015</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/6/2014

TIME: 1:38 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-016</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input checked="" type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: <u>12</u> inches <u> </u> feet
	Approximate depth of flow: <u><1</u> inches <u> </u> feet
	Approximate flow rate: <u>1</u> feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/22/14

TIME: 11:05 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-017</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (gas) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/7/2014

TIME: 10:28 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-018</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
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Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/11/2014

TIME: 12:49 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-020</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
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Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/7/2014

TIME: 10:38 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-021</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry <input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ___ feet Approximate flow rate: ___ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/7/2014

TIME: 10:48 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-022</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ___ feet Approximate flow rate: ___ feet per second
----------------------------	--

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/22/2014

TIME: 11:00 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-023</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/28/2014

TIME: 10:20 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-024</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/22/2014

TIME: 11:20 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-037</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input checked="" type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/7/2014

TIME: 2:31 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-026</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input checked="" type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/13/2014

TIME: 9:30 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-027</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches _____ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/2/2014

TIME: 10:12 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-028</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches _____ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/2/2014

TIME: 10:31 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-029</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input checked="" type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: <u><1</u> inches <u> </u> feet
	Approximate depth of flow: <u><1</u> inches <u> </u> feet
	Approximate flow rate: <u><1</u> feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

Jeremy D Moore

REPORTER SIGNATURE: _____



DATE: 5/15/2014

TIME: 11:20 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-030</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/7/2014

TIME: 10:05 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-031</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry <input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ___ feet Approximate flow rate: ___ feet per second
----------------------------	--

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/5/2014

TIME: 2:14 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-032</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ____ inches ____ feet
	Approximate depth of flow: ____ inches ____ feet
	Approximate flow rate: ____ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/5/2014

TIME: 2:30 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-033</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input type="checkbox"/> None <input checked="" type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ____ inches ____ feet
	Approximate depth of flow: ____ inches ____ feet
	Approximate flow rate: ____ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/9/2014

TIME: 9:53 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-034</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input checked="" type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ___ feet Approximate flow rate: ___ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/9/2014

TIME: 9:23 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-035</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input checked="" type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/7/2014

TIME: 8:03 AM PM

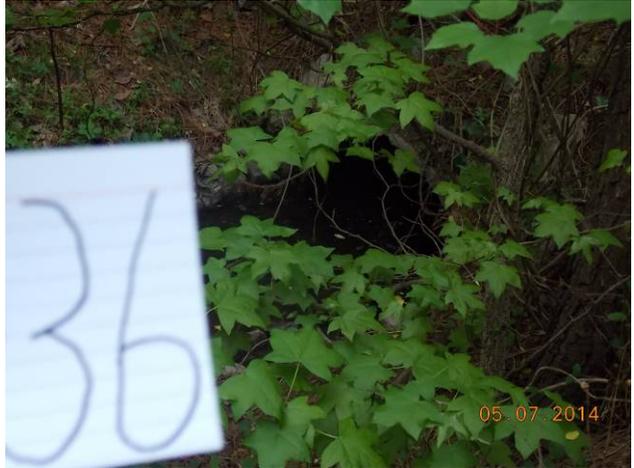
FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-036</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input checked="" type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input type="checkbox"/> None <input checked="" type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

Ponding water

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/15/2014

TIME: 10:35 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-037</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/22/2014

TIME: 10.50 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-038</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/5/2014

TIME: 10:00 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-039</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input checked="" type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches _____ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/11/2014

TIME: 8:02 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-040</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: __ inches __ feet Approximate depth of flow: __ inches ____ feet Approximate flow rate: __ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/2/2014

TIME: 10:56 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-041</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input type="checkbox"/> None <input checked="" type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/5/2014

TIME: 1:11 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-042</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input checked="" type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (gas) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/28/2014

TIME: 9:01 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-043</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/5/2014

TIME: 10:43 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-044</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input checked="" type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

Ponding water

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/13/2014

TIME: 10:45 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-045</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input checked="" type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input checked="" type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: __ inches __ feet Approximate depth of flow: __ inches ____ feet Approximate flow rate: __ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore

DATE: 5/6/2014

TIME: 9:49 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-046</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input checked="" type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: _____ inches _____ feet
	Approximate depth of flow: _____ inches _____ feet
	Approximate flow rate: _____ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: _____
Jeremy D Moore



DATE: 5/6/2014

TIME: 10:02 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-047</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/11/2014

TIME: 8:06 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-048</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: _____
Jeremy D Moore



DATE: 5/6/2014

TIME: 10:37 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-049</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/9/2014

TIME: 1:53 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-050</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

Unlikely Illicit Discharge Suspected Illicit Discharge Obvious Illicit Discharge



Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

Ponding

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/5/2014

TIME: 11:07 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-051</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input checked="" type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: _____ inches _____ feet
	Approximate depth of flow: _____ inches _____ feet
	Approximate flow rate: _____ feet per second

- REPORT SUMMARY CHARACTERIZATION -

Unlikely Illicit Discharge Suspected Illicit Discharge Obvious Illicit Discharge



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: _____ *Jeremy D Moore*



DATE: 5/5/2014

TIME: 1:57 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-052</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input checked="" type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input checked="" type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/5/2014

TIME: 1:50 AM PM

FILED BY: A. J. Covington

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-053</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input checked="" type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/5/2014

TIME: 2:00 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-054</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input checked="" type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ____ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/5/2014

TIME: 1:31 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-055</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input checked="" type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
- OUTFALL OBSERVATIONS -		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input checked="" type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: <u><1</u> inches <u> </u> feet
	Approximate depth of flow: <u><1</u> inches <u> </u> feet
	Approximate flow rate: <u><1</u> feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/9/2014

TIME: 12:51 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-056</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: __ inches __ feet Approximate depth of flow: __ inches ____ feet Approximate flow rate: __ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

Ponding water

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/19/2014

TIME: 8:37 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-057</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____	
	Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: _____

Jeremy D Moore



DATE: 5/13/2014

TIME: 10:28 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-058</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input checked="" type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ____ inches ____ feet
	Approximate depth of flow: ____ inches ____ feet
	Approximate flow rate: ____ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/2/2014

TIME: 10:41 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-059</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (gas) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
Approximate depth of flow: ___ inches ___ feet	
Approximate flow rate: ___ feet per second	

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/2/2014

TIME: 9:29 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-060</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ____ feet Approximate flow rate: ___ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/9/2014

TIME: 10:29 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-061</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

Ponding water

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/9/2014

TIME: 10:16 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-062</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

Unlikely Illicit Discharge Suspected Illicit Discharge Obvious Illicit Discharge



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/28/2014

TIME: 8:50 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-063</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/28/2014

TIME: 8:56 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-064</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches _____ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/19/2014

TIME: 9:08 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-066</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 7/28/2014

TIME: 12:30 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-067</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

Ponding water

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/19/2014

TIME: 9:26 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-068</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input checked="" type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ____ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

Ponding BMP

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/19/2014

TIME: 8:26 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-070</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/19/2014

TIME: 8:47 AM PM

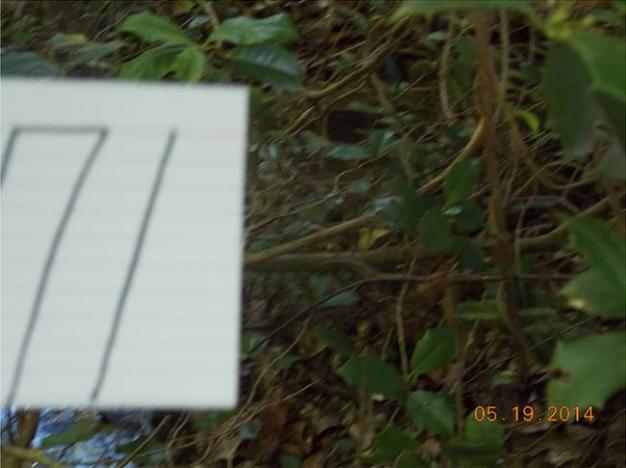
FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-071</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry <input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ___ feet Approximate flow rate: ___ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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	<p>Photographic Documentation of Outfall <u>Must</u> be Attached to Complete Report</p>
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ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/19/2014

TIME: 8:48 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-072</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ___ feet Approximate flow rate: ___ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/19/2014

TIME: 8:30 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-073</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____	
	Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/19/2014

TIME: 10:30 AM PM

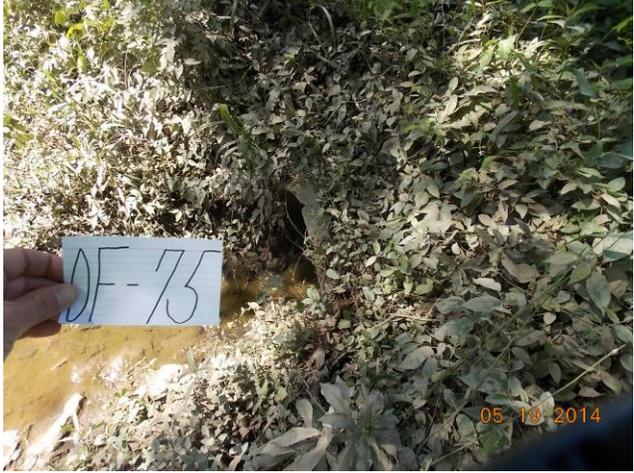
FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-075</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____	
	Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ___ feet Approximate flow rate: ___ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/19/2014

TIME: 10:10 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-076</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input checked="" type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: <u>6</u> inches <u>1</u> feet Approximate depth of flow: <u><1</u> inches <u>1</u> feet Approximate flow rate: <u>2</u> feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

Possible Water Leak

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/19/2014

TIME: 10:25 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-077</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ___ feet Approximate flow rate: ___ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/7/2014

TIME: 10:56 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-078</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry <input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: ___ inches ___ feet Approximate depth of flow: ___ inches ___ feet Approximate flow rate: ___ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/7/2014

TIME: 10:59 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-079</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 5/5/2014

TIME: 1:17 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-080</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: _____ inches _____ feet
	Approximate depth of flow: _____ inches _____ feet
	Approximate flow rate: _____ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/5/2014

TIME: 1:19 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-081</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ____ inches ____ feet
	Approximate depth of flow: ____ inches ____ feet
	Approximate flow rate: ____ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/16/2014

TIME: 8:27 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-082</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/11/2014

TIME: 10:20 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-083</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input checked="" type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input checked="" type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 6/11/2014

TIME: 10:14 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-084</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input checked="" type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/9/2014

TIME: 9:53 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-085</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input checked="" type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input checked="" type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input type="checkbox"/> None <input checked="" type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches ___ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

Ponding

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/5/2014

TIME: 10:54 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-086</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input checked="" type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input checked="" type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input type="checkbox"/> None <input checked="" type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

Ponding

REPORTER SIGNATURE: Jeremy D Moore



DATE: 5/20/2014

TIME: 9:16 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-088</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ___ inches ___ feet
	Approximate depth of flow: ___ inches _____ feet
	Approximate flow rate: ___ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/11/2014

TIME: 9:10 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-090</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input checked="" type="checkbox"/> Collapsed pipe <input checked="" type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input checked="" type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry <input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp <input type="checkbox"/> 3 - Visible flow Flow Estimates: Width of flow surface: __ inches __ feet Approximate depth of flow: __ inches ____ feet Approximate flow rate: __ feet per second
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- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/11/2014

TIME: 9:02 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-091</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input checked="" type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input type="checkbox"/> Stabilized embankment <input checked="" type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input checked="" type="checkbox"/> Other: <u>Stagnant Water</u> Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ____ inches ____ feet
	Approximate depth of flow: ____ inches ____ feet
	Approximate flow rate: ____ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/10/2014

TIME: 10:58 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-092</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input checked="" type="checkbox"/> < 2 days <input type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/9/2014

TIME: 9:02 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-093</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input checked="" type="checkbox"/> Other: <u>Stagnant Water</u> Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

DATE: 6/9/2014

TIME: 10:50 AM PM

FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-094</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>)	PROXIMITY TO WATERCOURSE ▼ <input type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input checked="" type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input checked="" type="checkbox"/> < 0.5 inches <input type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input checked="" type="checkbox"/> On\In concrete structure <input type="checkbox"/> In\Near watercourse <input checked="" type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input checked="" type="checkbox"/> Other: <u>Stagnant Water</u> Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input checked="" type="checkbox"/> 1 - No flow\interior conditions are dry
	<input type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: ____ inches ____ feet
	Approximate depth of flow: ____ inches ____ feet
	Approximate flow rate: ____ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
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**Photographic Documentation
of Outfall Must be Attached to
Complete Report**

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



DATE: 6/16/2014

TIME: 11:00 AM PM

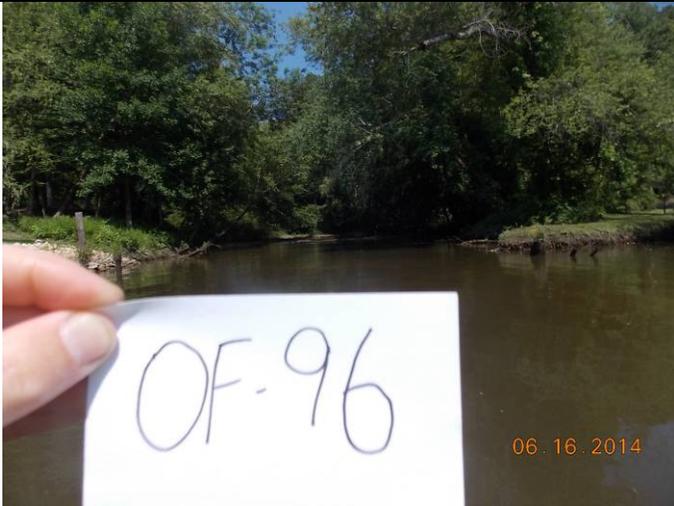
FILED BY: Jeremy Moore

- ENVIRONMENTAL INFORMATION -		
OUTFALL ID: <u>OF-096</u>	HYDROLOGIC UNIT CODE (HUC) ▼ <input checked="" type="checkbox"/> JA40 (<i>Appomattox River I and II</i>) <input type="checkbox"/> JA44 (<i>Swift Creek, Old Town Creek</i>) <input type="checkbox"/> JA-J (<i>Fleets Branch</i>)	PROXIMITY TO WATERCOURSE ▼ <input checked="" type="checkbox"/> Corridor (<i>In or adjacent to watercourse</i>) <input type="checkbox"/> Upland (<i>Not adjacent to watercourse</i>) <input type="checkbox"/> Tributary (<i>In or near basin, wetland, etc.</i>)
MOST RECENT RAIN EVENT ▼ Time Lapse: <input type="checkbox"/> < 2 days <input checked="" type="checkbox"/> > 2 days Estimated Amount: <input type="checkbox"/> < 0.5 inches <input checked="" type="checkbox"/> > 0.5 inches		
- OUTFALL OBSERVATIONS -		
SURROUNDING LAND USE(S) ▼ <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Open space (<i>check all that apply</i>)		
PIPE OBSTRUCTIONS ▼ <input type="checkbox"/> Collapsed pipe <input type="checkbox"/> Roots\brush <input type="checkbox"/> Earth\sediment <input type="checkbox"/> Rock\rubble <input checked="" type="checkbox"/> No obstruction		
PIPE SITUATION ▼ <input checked="" type="checkbox"/> Stabilized embankment <input type="checkbox"/> Eroded embankment <input type="checkbox"/> On\In concrete structure <input checked="" type="checkbox"/> In\Near watercourse <input type="checkbox"/> Upland area\away from watercourse <input checked="" type="checkbox"/> Maintained earth		
- ILLICIT DISCHARGE INDICATORS -		
ODOR	<input checked="" type="checkbox"/> None (<i>no detectable scent</i>) <input type="checkbox"/> Sewage <input type="checkbox"/> Rancid\Sour\Pungent <input type="checkbox"/> Sulfide (<i>rotten eggs</i>) <input type="checkbox"/> Natural gas <input type="checkbox"/> Petroleum (<i>gas</i>) <input type="checkbox"/> Other: _____	
APPEARANCE	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Oily sheen\film <input type="checkbox"/> Cloudy <input type="checkbox"/> Suds <input type="checkbox"/> Colored (<i>describe</i>): _____ <input type="checkbox"/> Other: _____ Deposits\Stains: <input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow line <input type="checkbox"/> Other (<i>describe</i>): _____	
FLOATABLES	<input checked="" type="checkbox"/> None <input type="checkbox"/> Algae <input type="checkbox"/> Dead fish <input type="checkbox"/> Suspended solids <input type="checkbox"/> Sewage <input type="checkbox"/> Other: _____	

FLOW CONDITIONS	<input type="checkbox"/> 1 - No flow\interior conditions are dry
	<input checked="" type="checkbox"/> 2 - No visible flow\interior conditions are moist or damp
	<input type="checkbox"/> 3 - Visible flow
	Flow Estimates:
	Width of flow surface: __ inches __ feet
	Approximate depth of flow: __ inches ____ feet
	Approximate flow rate: __ feet per second

- REPORT SUMMARY CHARACTERIZATION -

<input checked="" type="checkbox"/> Unlikely Illicit Discharge	<input type="checkbox"/> Suspected Illicit Discharge	<input type="checkbox"/> Obvious Illicit Discharge
--	--	--



Photographic Documentation
of Outfall Must be Attached to
Complete Report

ADDITIONAL NOTES:

REPORTER SIGNATURE: Jeremy D Moore



2014-2018

Virginia Stormwater Management Program

**Appendix B
MS4 Program
Implementation Plan**

Colonial Heights, Virginia

March, 2013

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#1: Public Education and Outreach on Stormwater Impacts	1.1. Public Outreach/ Education for Homeowners	1.1.1. Lawn and Garden Activities	Information will be included in <i>The City Focus</i> addressing appropriate landscape design, efficient irrigation, use of mulches, fertilizers, and pesticides. The City Focus is a City wide newsletter published in January, May, July and October.	Information on landscape design and fertilizer to be provided in May of each year. Information on mulch and efficient irrigation to be provided in May. Information on pesticides to be provided in July. <i>Use of harmful pesticides and fertilizers will be minimized by educating how water conservation techniques will be provided to homeowners.</i>	Q4	Q4	Q4	Q4	Q4	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> Horticulturist Web Administrator Executive Assistant 	Publish in Spring 2014 issue of the City's periodic newsletter and annually thereafter and city website
#1: Public Education and Outreach on Stormwater Impacts	1.1. Public Outreach/ Education for Homeowners	1.1.2. Water Conservation Practices for Homeowners	Provide information on city website and in <i>The City Focus</i> to advise public about water conservation practices. Provide links on City website to organizations that promote conservation practices.	Information to be provided in the Spring of each year and as necessary in drought conditions. <i>Water conservation techniques will be identified to homeowners.</i>	Q4	Q4	Q4	Q4	Q4	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> Web Administrator Executive Assistant 	Publish in Spring 2014 issue of the City's periodic newsletter and annually thereafter and city website
#1: Public Education and Outreach on Stormwater Impacts	1.1. Public Outreach/ Education for Homeowners	1.1.3. Proper Disposal of Hazardous Wastes	Provide information on city website and in <i>The City Focus</i> about the household hazardous waste pick up points and reasons to dispose of hazardous waste properly.	Information to be provided in the Fall of each year. <i>Homeowners will be educated on how to dispose of hazardous wastes properly.</i>	Q2	Q2	Q2	Q2	Q2	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> Web Administrator Executive Assistant 	Publish in Fall 2014 issue of the City's periodic newsletter and annually thereafter and city website
#1: Public Education and Outreach on Stormwater Impacts	1.1. Public Outreach/ Education for Homeowners	1.1.4. Trash Management	Provide information on city website and in <i>The City Focus</i> to inform public about benefits of proper trash management and effects of littering.	Information to be provided in Fall of each year. <i>Homeowners will be aware of problems associated with improper trash disposal (flooding, health hazards, etc.)</i>	Q2	Q2	Q2	Q2	Q2	<ul style="list-style-type: none"> MS4 Coordinator Web Administrator Executive Assistant 	<ul style="list-style-type: none"> Public Works Superintendent CWMA Operations Director 	Publish in Fall 2014 issue of the City's periodic newsletter and annually thereafter and city website

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#1: Public Education and Outreach on Stormwater Impacts	1.1. Public Outreach/ Education for Homeowners	1.1.5. Pet Waste Management	Provide information on city website and in <i>The City Focus</i> to inform public about impacts of pet wastes to the environment. Post signs at City parks to address pet waste disposal. Provide waste disposal bags at city parks.	Information to be provided in the Spring of each year. Signs currently posted. Currently provided and will continue. <i>Owner will be aware of legal responsibility to remove pet wastes from City property and will use waste disposal bags to contain pet wastes.</i>	Q4	Q4	Q4	Q4	Q4	<ul style="list-style-type: none"> MS4 Coordinator Web Administrator Executive Assistant 	<ul style="list-style-type: none"> Parks Superintendent 	Publish in Spring 2014 issue and annually thereafter and city website
#1: Public Education and Outreach on Stormwater Impacts	1.2. Targeting Public Outreach/ Education	1.2.2. Develop a Relationship with Local Media	Identify local media staff and send them information generated.	Identify and review annually. <i>Get media involved.</i>	Q4	Q4	Q4	Q4	Q4	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> 	Provide in Spring 2014
#1: Public Education and Outreach on Stormwater Impacts	1.2. Targeting Public Outreach/ Education	1.2.3. Classroom Education on Stormwater	Review curriculum for sixth grade students addressing natural resource management and its relation to public policy and cost/benefit tradeoffs as defined by SOL guidelines consistent with grade level. Target a select school in first year and evaluate for expansion.	Curriculum to be developed and used annually. <i>Children will learn about water conservation and environmental impacts caused by Improper waste disposal and misuse of household products.</i>	Q2	Q2	Q2	Q2	Q2	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> School Administration Youth Services 	Coordinate campaign with Schools in Fall 2014 and annually thereafter
#1: Public Education and Outreach on Stormwater Impacts	1.2. Targeting Public Outreach/ Education	1.2.4. Organized Education on Stormwater	Identify two (2) target audiences who would benefit from organized education programs. Potential groups include the Boy and Girl Scouts.	Make contact with two (2) youth group leaders and explore target education programs. <i>Children will learn about environmental impacts of improper waste disposal and will learn to take responsibility for their environment.</i>	Q1	Q1	Q1	Q1	Q1	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> Youth Services 	Record number of contacts and provide report on projects completed each year in Q1 of ensuing year

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#1: Public Education and Outreach on Stormwater Impacts	1.3. Public Outreach Programs for New Development	1.3.1. Low Impact Development	Encourage developers and planners to apply low impact development practices (LID) Establish guidelines in plan review process for voluntary consideration applicable BMP measures for new development	Establish guidelines, record contact with developer and estimate number of acres developed with LID annually. <i>Low-impact development practices will be considered and used by builder to minimize development impacts</i>	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	• MS4 Coordinator	<ul style="list-style-type: none"> Assistant Director of Public Works Senior Engineering Technician 	Track development information on an ongoing basis. Complete annual report each year in Q1 of ensuing year
#1: Public Education and Outreach on Stormwater Impacts	1.4. Pollution Prevention Program for Household and Existing Development	1.4.1. Pollution Prevention Program for Homeowners	Formalize pollution prevention hotline to report problems and/or illicit discharge and notify the public of the hotline number and conditions they should be aware of.	Develop hotline to appear permanently on and in <i>The City Focus</i> . <i>Citizens will be able to notify appropriate City personnel of violations and unfavorable conditions</i>	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	• MS4 Coordinator	<ul style="list-style-type: none"> Web Administrator EMS Communications Supervisor 	Track notifications on an ongoing basis. Complete annual report each year in Q1 of ensuing year.
#1: Public Education and Outreach on Stormwater Impacts	1.4. Pollution Prevention Program for Household and Existing Development	1.4.2. Pollution Prevention for Businesses	Establish guidelines for a pollution prevention and recognition program tailored for the business community and annually provide information to business owners through a brochure or the City's newsletter.	Establish a formal pollution prevention program that provides guidelines for the business community to follow and obtain public recognition. <i>Recognition of pollution prevention efforts and environmental responsibility will provide an incentive for the business community to cooperate with proper storm water management.</i>	Q 1	Q1	Q1	Q1	Q1	• MS4 Coordinator		Distribute brochure and give recognition to one business each year in Q1 of ensuing year.

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#2: Public Involvement/ Participation	2.1. Activities/ Public Participation	2.1.1. Stream Cleanup	Involve Boy and Girl Scout troops or other non-municipal organizations in cleanup efforts along streams and rivers. Encourage Scout masters to involve troop participation to meet goals consistent with the Boy Scout Forestry, and Soil and Water Conservation	Meet annually in Fall with Boy and Girl Scoutmasters / troop leaders or other non-municipal organizations to schedule annual clean up day along streams and rivers. <i>Children/Citizens will learn about environmental impacts of improper waste disposal.</i>	Q2	Q2	Q2	Q2	Q2	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> PW Administrative Assistant Schools 	Schedule coordination meeting for Fall 2014 and annually thereafter
#2: Public Involvement/ Participation	2.1. Activities/ Public Participation	2.1.2. Adopt-A-Street/Adopt-A-Stream	Encourage residents and groups to adopt streets and areas along streams and rivers for clean up and volunteer monitoring and identify which stream is the recipient of runoff from the adopted street. Develop a program to distribute to interested groups.	Inform public biannually through website and <i>The City Focus</i> of streets available for adoption. <i>Public will help keep streets and streams free of debris and identify with the program.</i>	Q2 & Q4	Q2 & Q4	Q2 & Q4	Q2 & Q4	Q2 & Q4	<ul style="list-style-type: none"> PW Administrative Assistant 	<ul style="list-style-type: none"> MS4 Coordinator Web Administrator Executive Assistant 	Schedule public service announcements for Fall and Spring of each year
#2: Public Involvement/ Participation	2.1. Activities/ Public Participation	2.1.3. Public Programs in Schools	Encourage school children to create educational displays for public libraries and schools addressing stormwater pollution and control measures. Set up meetings and offer assistance to school science coordinator. Public Works to provide oversight and coordination.	Meet with Science coordinator annually. Consider creation of displays for August (National Water Quality Month). <i>Children will learn about stormwater impacts and ways that they can improve their environment.</i>	Q2	Q2	Q2	Q2	Q2	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> Schools 	Schedule meeting for Fall 2014 and annually thereafter
#3: Illicit Discharge Detection and Elimination	3.1. Illicit Discharge and Elimination	3.1.1. Review of Legal Authority	Assess City ordinance to ensure illicit discharges are adequately defined and prohibited. Ensure enforcement actions are implemented.	Revise ordinance as needed and review annually. (High Priority)	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> City Attorney Engineering Technician Assistant Director of Public Works 	Update and enforce on an ongoing basis.

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#3: Illicit Discharge Detection and Elimination	3.2. Illicit Discharge Detection	3.2.1. Inventory Regulated Stormwater Outfall Locations	Using existing map and fieldwork, establish program and schedule for inventory and data base development.	Existing regulated outfalls will be identified for annual inspection and illicit discharge tracking. <i>Creates map of regulated outfalls.</i> The City's 2003 inventory included approximately 40 outfalls to waterways and 600 inlets.	O N G O N G O N G	O N G O N G O N G Q1	O N G O N G O N G Q1	O N G O N G O N G Q1	O N G O N G O N G Q1	• MS4 Coordinator	• Senior Engineering Technician • Engineering Technician	Inspect regulated outfalls annually and update map of regulated outfalls as changes occur. Complete annual report in Q1 of ensuing year.
#3: Illicit Discharge Detection and Elimination	3.2. Illicit Discharge Detection	3.2.2. Map Regulated Outfalls and their Drainage Areas	Using existing mapping and continuing to do field work, refine and increase accuracy and detail of stormwater drainage system maps.	Create mapping delineating drainage areas associate with regulated outfalls. <i>Areas contributing to runoff will be identified.</i>	O N G O N G O N G	O N G O N G O N G Q1	O N G O N G O N G Q1	O N G O N G O N G Q1	O N G O N G O N G Q1	• Senior Engineering Technician	• MS4 Coordinator	Continue to update and refine map of drainage basins and regulated outfalls. Publish annual map update in Q1 of each year.
#3: Illicit Discharge Detection and Elimination	3.2. Illicit Discharge Detection	3.2.3. Locate Priority Area or Businesses Likely to have an Illicit Discharge	Using staff knowledge and available information develop a list of areas and businesses that would have a significant impact if a spill occurred or would have a high probability of having an accidental spill (ie auto repair shop restaurant and other industrial activities).	Create mapping of priority areas with unique pollution prevention schemes. <i>Areas that are possible sources of detrimental pollutants will be identified and monitored of possible problems</i>	Q1	Q1	Q1	Q1	Q1	• MS4 Coordinator	• Senior Engineering Technician	Update as necessary each year in Q1 of each year.
#3: Illicit Discharge Detection and Elimination	3.2. Illicit Discharge Detection	3.2.4. Inspect Regulated Outfalls for Dry Weather Discharge	Develop a program to use in the inspection to include visual observation, odors and conditions that would indicate illicit discharges. Schedule and forms to document the program will be included.	Inspect all regulated outfalls annually. <i>Dry weather discharges will be identified and appropriate action taken</i>	Q3	Q3	Q3	Q3	Q3	• MS4 Coordinator	• Engineering Technician	Inspect regulated outfalls in Q3 of each year. Complete annual report in Q1 of ensuing year.

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS	
					2014	2015	2016	2017	2018				
#3: Illicit Discharge Detection and Elimination	3.3. Illicit Discharge Elimination	3.3.1. Trace and Remove Illicit Discharge	Establish method for tracing illicit discharges and procedures for enforcing ordinances. Techniques and safety need to be included	Revise Handbook and include enforcement measures.		Q4					<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> PW Administrative Assistant 	Complete in Q4 of 2015
#3: Illicit Discharge Detection and Elimination	3.3. Illicit Discharge Elimination	3.3.2. Program Evaluation and Assessment	Develop a formal record-keeping procedure to document identification of illicit discharge and the steps taken to address the situation	Annual review by City Staff. <i>Historic records addressing illicit discharge detection and elimination will be maintained and can be used for program evaluation.</i>	O N G O I N G	O N G O I N G Q1	O N G O I N G Q1	O N G O I N G Q1	O N G O I N G Q1		<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> PW Administrative Assistant 	Track illicit discharges as identified. Complete annual report in Q1 of ensuing year
#3: Illicit Discharge Detection and Elimination	3.4. Illicit Discharge Detection to be Distributed	3.4.1. Illicit Discharge Education for Residences	Develop public education pollution prevention handouts to address illicit discharges from residences. Suggested topics include Household Hazardous Waste, Grass Clippings and Pesticides. Prepare 1 per year or as need is shown. Coordinate with 1.1 and 1.4	Provide on city forms to residents addressing household hazardous waste and impact to stormwater. <i>Homeowners will dispose of household hazardous wastes properly.</i>	Q3	Q3	Q3	Q3	Q3		<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> Web Administrator Executive Assistance 	Include insert in Winter issue of the City's periodic newsletter and website
#3: Illicit Discharge Detection and Elimination	3.4. Illicit Discharge Detection to be Distributed	3.4.2. Illicit Discharge Education for Businesses	Develop public education pollution prevention handouts to address illicit discharges from specific businesses. Suggested businesses include Auto Repair, Dry Cleaners and Restaurants. Prepare 1 per year or as need is shown. Coordinate with 1.4.2	Provide handouts to businesses addressing illicit discharges from their specific business and impact to stormwater. <i>Business will dispose of hazardous wastes and minimize use of hazardous or toxic materials.</i>	Q4	Q4	Q4	Q4	Q4		<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> Web Administrator Executive Assistance 	Include insert in Spring issue of City Focus and website

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#4: Construction Site Stormwater Runoff Control	4.1. Erosion and Sediment Control Plan Review in association with Site Plan Review	4.1.1. Evaluate Current Ordinance and Method of Site Plan Review Using DCR Guidelines	Review current City of Colonial Heights ordinances, policies and procedures for reviewing E&S Control plans submitted in conjunction with the Site Plan review. Compare the City practices with those of other Virginia municipalities and the industry standards.	Compile, create, and publish a standard operating procedure for the review of E&S Control Plans. Refine E&S Control Plan review and publish definitive SOP	Q4	Q4	Q4	Q4	Q4	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> MS4 Coordinator Senior Engineering Technician Administrative Assistant 	Complete review in Q4 of each year
#4: Construction Site Stormwater Runoff Control	4.1. Erosion and Sediment Control Plan Review in association with Site Plan Review	4.1.2. Revise Ordinance Pertaining to Site Plan Review Including Construction Waste	Revise and introduce legislation to City Council as needed and identified in 4.1.1	Development and adaptation of ordinance. <i>Uniform application of regulation.</i>	Q1	Q1	Q1	Q1	Q1	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> MS4 Coordinator Administrative Assistant City Attorney 	Develop and introduce in Q1 of each year
#4: Construction Site Stormwater Runoff Control	4.1. Erosion and Sediment Control Plan Review in association with Site Plan Review	4.1.3. Develop Standards and Design Procedures for Site Plan Design	Review current City of Colonial Heights approved E&S Control methods guidance. Develop guidance specific to City topography and development practices, as to how and when each E&S Control method should be used. Include minimized Clearing, Stabilized Drainage Ways, Stabilized Exposed Soils, Protected Steep Slopes, Protected Waterways, Phased Construction, temporary diversion dikes, wind fences, brush barriers, silt fences, sediment basins and rock dams, sediment filters and sediment chambers, sediment traps and storm drain inlet protection. Coordinate with Virginia DCR, E&S Manual.	Create regulations that provide City Staff with clear guidance. <i>Simplify site plan design as it relates to erosion control.</i>	Q3	Q3	Q3	Q3	Q3	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> MS4 Coordinator 	Review procedures annually in Fall

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#4: Construction Site Stormwater Runoff Control	4.2. Construction Site Inspections for E&S Control Compliance	4.2.1. Develop Internal Checklist for Reviewers for Consistency	Collect and review other jurisdictions compared to Colonial Heights and develop internal checklist for reviewers. Consider adopting DCR checklist.	Development of internal checklist for reviewers. Internal checklist for reviewers creates consistency in the review process.	Q3	Q3	Q3	Q3	Q3	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> MS4 Coordinator Senior Engineering Technician 	Update and Maintain checklist. Revisions complete Fall each year
#4: Construction Site Stormwater Runoff Control	4.2. Construction Site Inspections for E&S Control Compliance	4.2.2. Publish guidance documents on E&S Control Plan Inspections	Review, revise and publish current inspection procedures for E&S Control Plans.	Create and publish standard E&S Control Inspection Checklists. Provide best practices guidance to City staff performing E&S site inspections	Q2					<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> MS4 Coordinator Engineering Technician 	Complete review, revisions and publication in Q2 2014
#4: Construction Site Stormwater Runoff Control	4.3. Internal Management	4.3.1. Training of City Staff for E&S Management and Site Plan Review	Select city site review staff members for training and certification in Virginia Department of Conservation (DCR) and Recreation E&S Control in Virginia for Plan Reviewers.	Provide opportunity for training and certification to new employees within 1 year of employment. Improves understanding of inspections on BMPs and E&S Procedure.	O N G O I N G, , Q1	O N G O I N G , , Q1	O N G O I N G , , Q1	O N G O I N G , , Q1	O N G O I N G , , Q1	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> MS4 Coordinator 	Provide training for employees as needed Complete annual report of certifications in Q1 of ensuing year
#4: Construction Site Stormwater Runoff Control	4.3. Internal Management	4.3.2. Training and Certification of E&S Construction Site Inspectors	Select city site review staff members of training and certification in (DCR) E&S Control in Virginia for Plan Inspectors.	Provide opportunity for training and certification to new employees within 1 year of employment. Improves understanding of inspections on BMPs and E&S procedure.	O N G O I N G, , Q1	O N G O I N G , , Q1	O N G O I N G , , Q1	O N G O I N G , , Q1	O N G O I N G , , Q1	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> 	Provide training for employees Complete annual report of certifications in Q1 of ensuing year
#4: Construction Site Stormwater Runoff Control	4.3. Internal Management	4.3.3. Coordination with Other Staff	Develop scheduled periodic meetings with Site Reviewers, Inspectors, GIS staff, and Public Works staff to discuss modifications to benefit programs.	Schedule meeting annually. <i>Continuously improve program for effectiveness.</i>	Q3	Q3	Q3	Q3	Q3	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> Senior Engineering Technician Engineering Technician Construction Inspector 	Conduct staff meeting in Q3 of each year

Colonial Heights, Virginia MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.2. Non-structural BMP's	5.2.1. Review and Evaluate Current Technology	Evaluate current methods being used and select those applicable for Colonial Heights	Develop list of methods. <i>Allow developers to consider alternatives</i>	Q3	Q3	Q3	Q3	Q3	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> MS4 Coordinator 	Review methods annually and add approved methods by Q3 each year
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.2. Non-structural BMP's	5.2.3. Evaluate and Update by Inspection of Construction Sites and Literature Review	Review literature for new techniques. Inspect sites with non-structural controls and evaluate effectiveness. Update guidelines as required	Inspect site and revise guidelines every 3 years. <i>Annual reporting of results allows successes and failures to be identified to improve cost effectiveness.</i>	Q4			Q4		<ul style="list-style-type: none"> Engineering Technician 	<ul style="list-style-type: none"> Assistant Director of Public Works City Attorney 	Complete review and evaluation and update guidelines in Q4 2014 and Q4 2017
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.2. Non-structural BMP's	5.2.4. Develop and Maintain an inventory of Non-structural BMPs	Establish an inventory of non-structural BMPs to include type, order required O&M, inspection frequency, and locations of facilities constructed after 2003. Identify previously constructed non-structural BMPs as data becomes available	Develop and maintain data base. <i>Ensure tracking of BMPs and their effectiveness.</i>	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> Senior Engineering Technician MS4 Coordinator 	Inventory to be updated as new BMPs are added/constructed
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.3. Structural BMP's	5.3.1. Review & Evaluate Current Technology	Review and evaluate current technologies for structural BMP's for new and redeveloped situations being used in other localities and select those applicable to Colonial Heights.	Evaluate current methods being used and select those applicable for Colonial Heights. <i>Improve rate of success.</i>	Q4					<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> Senior Engineering Technician 	Complete in Q4 2014

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.3. Structural BMP's	5.3.2. Adopt Standards and Design Criteria	Adopt design criteria and examples of structures such as retention basins, filters or other structures and landscaping features such as grassed swales or filter strips. The difference between structured and non-structured landscape features is the need to incorporate physical maintenance. Adopt a manual for distribution to design firms and developers.	Provide guidance document. <i>Allows developer to prepare consistent design.</i>		Q1				<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> Senior Engineering Technician MS4 Coordinator 	Update Design guidance by 2015
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.3. Structural BMP's	5.3.3. Develop Inspection Procedures for Structural BMP's	Evaluate procedures used by others and prepare checklist, logs and methodology to inspect the selected types of BMP's. Develop inspection schedule for determining frequency. Include method for putting data into a data base. Include a measurement for determining effectiveness.	Conduct inspections as per schedule and maintain inspection on file. <i>Determine structural conditions and effectiveness.</i>	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	O N G O I N G	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> Senior Engineering Technician MS4 Coordinator 	
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.3. Structural BMP's	5.3.4. Develop and Maintain Inventory of Structural BMP's	Coordinate with mapping to establish an inventory of structural BMP's to Include type, owner required O & M, inspection frequency, and location.	Develop and maintain data base. <i>BMPs and map updates annual after initial completion.</i>	Q1	Q1	Q1	Q1	Q1	<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> Senior Engineering Technician MS4 Coordinator 	Update database as needed in Q1 each year

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.4. Internal Management	5.4.1. Training of City Staff for Site Plan Review and Field Inspections	Select staff members for training and certification of city staff using DCR course "Basic E & S Control in Virginia"	Provide opportunity for certification for new employees within 1 year of employment. <i>Improves understanding of inspections on BMPs and E&S procedure.</i>	O G N G O N G Q1	O N G I O N G Q1	O N G I O N G Q1	O N G I O N G Q1	O N G I O N G Q1	• Assistant Director of Public Works	• MS4 Coordinator	Continue certification on an ongoing basis and complete annual report in Q1 of ensuing year
#5: Post-Construction Stormwater Management in New Development and Redevelopment	5.4. Internal Management	5.4.2. Coordination with Other Staff	Develop scheduled periodic meetings with Site Reviewer, Inspectors, and Public Works to discuss modification to benefit programs.	Schedule meeting annually. <i>Continuously improve program for effectiveness.</i>	Q3	Q3	Q3	Q3	Q3	• Assistant Director of Public Works	• MS4 Coordinator	Conduct annual staff meeting in Q3
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.1. Source Controls at Municipal Facilities.	6.1.1. Maintenance Facilities	Inventory municipal facilities involved with possible stormwater pollution impact.	Develop mapping showing municipal facilities. <i>City will be able to identify possible source of contaminants to stormwater runoff.</i>		Q3				• Assistant Director of Public Works	• Facilities Maintenance Superintendent • Parks Superintendent • MS4 Coordinator	Update mapping in Q3 2015
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.1. Source Controls at Municipal Facilities.	6.1.2. Review and Prepare Pollution Prevention Plans for a Maintenance Garage	Evaluate current pollution prevention plans for applicable City facilities: DPW, school bus facilities and transit facilities and update as required.	Update plans and meet with appropriate City personnel. <i>City personnel will evaluate current pollution prevention plans and prepare for possible emergency procedures.</i>		Q1				• MS4 Coordinator	• Automotive Maintenance Superintendent or Designee • Facilities Maintenance Superintendent • MS4 Coordinator	Update plan in Q1 2015
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.1. Source Controls at Municipal Facilities.	6.1.3. Prepare Pollution Prevention Plan for Recreational Facilities	Prepare pollution prevention plans for applicable City recreational facilities.	Update plans and meet with appropriate City personnel. <i>City personnel will evaluate current pollution prevention plans and prepare for possible emergency procedures.</i>		Q1				• MS4 Coordinator	• Facilities Maintenance Superintendent • MS4 Coordinator	Update in Q1 2015

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.1. Source Controls at Municipal Facilities.	6.1.4. Personnel Training	Train operations personnel in pollution prevention measures.	Record annual training schedules and number and department of personnel. <i>City will ensure that all personnel are adequately informed of pollution prevention measures.</i>	Q3	Q3	Q3	Q3	Q3	<ul style="list-style-type: none"> MS4 Coordinator 	<ul style="list-style-type: none"> Public Works Superintendent Assistant Director of Public Works Automotive Maintenance Superintendent Facilities Maintenance Superintendent 	Complete annual training in Q3 of each year
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.2. Source Control – Streets and Parking Lots	6.2.1. Parking Lot and Street Cleaning	One full time sweeper to clean all curb and gutter streets once a year.	Develop mapping to indicate streets cleaned and tonnage picked up. <i>City will track and evaluate current street cleaning routine and identify problem areas.</i>	ONGOING,	ONGOING, Q1	ONGOING, Q1	ONGOING, Q1	ONGOING, Q1	<ul style="list-style-type: none"> Public Works Superintendent 	<ul style="list-style-type: none"> MS4 Coordinator Senior Engineering Technician 	Sweep streets throughout year. Complete annual performance report in Q1 of ensuing year
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.2. Source Control – Streets and Parking Lots	6.2.2. Personnel Training	Evaluate inlet protection, erosion, and sediment control measures in road, utility, and bridge maintenance and train staff on methods.	Meet with 25% of required personnel on annual basis for training on current erosion and sediment control measures. <i>City personnel will employ current water quality measures for road, utility, and bridge maintenance.</i>	Q4	Q4	Q4	Q4	Q4	<ul style="list-style-type: none"> Public Works Superintendent 	<ul style="list-style-type: none"> Stormwater Foreman MS4 Coordinator 	Conduct training in Q4 of each year
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.3. Source Control – Storm Drainage System	6.3.1. Storm Drain Intake System Cleaning	Using City field crews and equipment, clean curb inlets, catch basins and manholes in the stormwater drainage system.	Clean 25% of storm structures per year. Record for historic data on database. <i>Reduces volume of solids in stormwater.</i>	ONGOING,	ONGOING, Q1	ONGOING, Q1	ONGOING, Q1	ONGOING, Q1	<ul style="list-style-type: none"> Public Works Superintendent 	<ul style="list-style-type: none"> Stormwater Foreman MS4 Coordinator 	Clean structures throughout year. Complete annual report in Q1 of ensuing year

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS	
					2014	2015	2016	2017	2018				
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.3. Source Control – Storm Drainage System	6.3.2. Storm Drain System Inventory	Delineate sub basins of non-regulated outfall during Master Plan preparation. Inventory and evaluate all structures within one drainage basin per year. Coordinate with 5.1	Develop mapping and data base for non-regulated outfall basins. <i>Identify outfall areas to account for sources of possible contaminants.</i>		Q2					<ul style="list-style-type: none"> Assistant Director of Public Works 	<ul style="list-style-type: none"> Senior Engineering Technician 	Complete by Q2 of 2015
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.3. Source Control – Storm Drainage System	6.3.3. Stormwater Complaint File and History	Develop system to track and maintain historical data.	Review data annually. <i>Detection of failing or undersized systems</i>	O N G O I N G	O N G O I N G , Q1	O N G O I N G , Q1	O N G O I N G , Q1	O N G O I N G , Q1		<ul style="list-style-type: none"> Public Works Superintendent 	<ul style="list-style-type: none"> Public Work Superintendent MS4 Coordinator Stormwater Foreman 	Review citizen's request/work order history throughout year. Complete annual report by Q1 of ensuing year.
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.4. Materials Management	6.4.1. Hazardous Materials Storage and Management	Evaluate storage locations and method of storing hazardous materials by EPA guidelines.	Record locations and methods of hazardous materials storage on map layer and database and inspect storage facilities annually. <i>Ensure hazardous materials storage containment is adequate.</i>	Q4	Q4	Q4	Q4	Q4		<ul style="list-style-type: none"> Senior Engineering Technician 	<ul style="list-style-type: none"> MS4 Coordinator Automotive Maintenance Superintendent Facilities Superintendent Director 	Complete inventory in Q4 of first year and inspect annually in Q4 of each year
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.4. Materials Management	6.4.2. Salt Storage	Evaluate application and method of storing road salt.	Record application locations and methods of storage in layer and database. Inspect storage facilities annually. <i>Ensure salt storage is adequate.</i>	Q3	Q3	Q3	Q3	Q3		<ul style="list-style-type: none"> Public Works Superintendent 	<ul style="list-style-type: none"> Streets Foreman MS4 Coordinator 	inspect in Q3 of each ensuing year.

Colonial Heights, Virginia

MS4 Program Implementation Plan, 2014-2018

MINIMUM CONTROL MEASURE	BEST MGMT PRACTIC CATEGORY	PROPOSED BEST MGMT PRACTICE	PROGRAM TASK	MEASURABLE GOAL/ ANTICIPATED ACHIEVEMENT	TASK SCHEDULE FISCAL YEARS ENDING JUNE 30					LEAD RESPONSIBILITY	SUPPORT RESPONSIBILITY	COMMENTS
					2014	2015	2016	2017	2018			
#6: Pollution Prevention/ Good House-keeping for Municipal Operations	6.4. Materials Management	6.4.3. Oil and Antifreeze Recycling	Evaluate used oil and antifreeze recycling methods.	Record used oil and used antifreeze recycling programs and amount collected to assess efficiency of current programs annually. <i>Ensure current programs are adequate</i>	O N G O I N G G, Q1	O N G O I N G , Q1	O N G O I N G , Q1	O N G O I N G , Q1	O N G O I N G , Q1	<ul style="list-style-type: none"> Public Works Superintendent 	<ul style="list-style-type: none"> MS4 Coordinator 	Record quantities of collected materials continuously. Complete annual report in Q1 of ensuing year

Illicit Discharge Incident Reference Guide			
Reference Number	Location / Descriptive Name	Incident Date	Date Closed
00001	Southpark Mall carnival discharge	12-Mar-09	13-Mar-09
00001A	<i>second incident reported on July 30</i>	30-Jul-09	30-Jul-09
00001B	<i>third incident discovered on June 22</i>	22-Jun-11	27-Jun-11
00002	Highland Avenue garden drainage ditch	6-Apr-09	6-Apr-09
00003	Lafayette Avenue automobile leakage	14-May-09	currently open
00004	Billy's Lawn Service, Pertshire and School Streets	6-Nov-09	currently open
00005	214 Biltmore Drive	16-Apr-10	16-Apr-10
00006	Ridge and Snead	28-Mar-11	currently open
00007	111 Lakeside		currently open
00008	Hemlock Avenue, north end	17-Jun-11	currently open
00009	94 Swift Creek Lane	13-Jun-11	currently open
00010	209 Windmere Avenue	15-Jul-11	18-Jul-11
00011	210 Windmere Avenue	15-Jul-11	currently open
00012	1801 Duke of Gloucester inlet discharge	30-Aug-11	7-Sep-11
00013	Helen Avenue catch basin connection	4-Oct-11	5-Oct-11
00014	Don Jose, Boulevard @ Yew Ave	11-Apr-14	4/15/2014
00015	Martin's Grocery	24-Jun-14	7/8/2014

2013 POTENTIAL ILLICIT DISCHARGERS by INDUSTRY

TRADE NAME	FULL NAME	ADDRESS #	STREET NAME	CITY	STATE	ZIP	LICENSE NO	ALTERNATIVE CONTACT	FACILITIES	TYPE OF DISCHARGE	PAST VIOLATIONS
Virginia Medical Group PC		2905	Boulevard	Colonial Heights	VA	23834	20091367				
Colonial Heights Medical Center		3512	Boulevard	Colonial Heights	VA	23834	20091762				
Southside Pediatric Center		400 Suite D	Southpark Boulevard	Colonial Heights	VA	23834	20091291				
Commonwealth Dentistry		456 Suite 5	Charles Dimmock Pkwy	Colonial Heights	VA	23834	20091296				
Colonial Orthopedics Inc		131	Jennick Dr	Colonial Heights	VA	23834	20090797				
Virginia Physicians for Women Ltd		280	Charles Dimmock Pkwy	Colonial Heights	VA	23834	20091070				
Caldwell, Melaney MD	Caldwell Pediatrics & Wellness Center	2425 Suite 6	Boulevard	Colonial Heights	VA	23834	20091299				
Virginia Urology Center PC		436	Clairmont Ct	Colonial Heights	VA	23834	20090264				
Swift Creek Family Care		3628	Boulevard	Colonial Heights	VA	23834	20090590				
Family Auto Sales LLC		3626 Suite A	Boulevard	Colonial Heights	VA	23834	20090448				
Infant Jesus Children's Clinic PLC		210	Temple Ave	Colonial Heights	VA	23834	20091000				
Riverview Physicians for Women		439	Jennick Drive	Colonial Heights	VA	23834	20090431				
Colonial Heights Veterinary Hospital PC		3666	Boulevard	Colonial Heights	VA	23834	20090236				
Commonwealth Pediatrics PC		430 Suite 211	Clairmont Court	Colonial Heights	VA	23834	20091577				

2013 POTENTIAL ILLICIT DISCHARGERS by INDUSTRY

TRADE NAME	FULL NAME	ADDRESS #	STREET NAME	CITY	STATE	ZIP
Ackerman Auto Repair	James Ackerman	111	Boulevard	Colonial Heights	VA	23834
Advance Auto Parts #2840		3104	Boulevard	Colonial Heights	VA	23834
Always Auto Parts	Tri-City Properties of VA	P O Box 39		Colonial Heights	VA	23834
Arby's		107	Temple Lake Drive	Colonial Heights	VA	23834
Battlefield Park Body Shop	Wilson W Abernathy	118	Bruce Ave	Colonial Heights	VA	23834
Blue's Place	Michael Royea	1702	Boulevard	Colonial Heights	VA	23834
Boulevard BBQ	Jose E Melendez	2231	Boulevard	Colonial Heights	VA	23834
Boulevard BP	MS & KS LLC	915	Boulevard	Colonial Heights	VA	23834
Briggs Auto Service	Mark Briggs	1700	Snead Ave	Colonial Heights	VA	23834
Burger King		3116	Boulevard	Colonial Heights	VA	23834
Burger King		401	Southpark Blvd	Colonial Heights	VA	23834
Captain Tom's Seafood	T & J Restaurants Inc	1717	Boulevard	Colonial Heights	VA	23834
Carini Restaurant Corp	Carini's Restaurant Corp	3620	Boulevard	Colonial Heights	VA	23834
Carlton's Auto Service	Clifford B McGlone	116	Taswell Ave	Colonial Heights	VA	23834
Castaways Coffee House Inc	Kelly Scarbro	591	Southpark Blvd	Colonial Heights	VA	23834
Chanello's Pizza	Roodes Pizza Inc	3409	Boulevard	Colonial Heights	VA	23834
Chick-Fil-A	Donovan Carless	384 B-10	Southpark Circle	Colonial Heights	VA	23834
Colonial Heights Muffler & Auto	Autoworks Service Center	1718	Snead Ave	Colonial Heights	VA	23834
Colonial Italian Pizza Restaurant	Rosa-Nero Inc	1	Dunlop Village	Colonial Heights	VA	23834
Colonial Motor Company	Lyman W Ange Jr	3517	Boulevard	Colonial Heights	VA	23834
Colonial Shell	Rass Inc	3220	Boulevard	Colonial Heights	VA	23834
Conner Small Engine	Robert H Conner	1000	Temple Ave	Colonial Heights	VA	23834
Dairy Queen	J & A Inc	294	Southpark Circle	Colonial Heights	VA	23834
Dante's Pizzeria	Dante's Pizzeria	3008	Boulevard	Colonial Heights	VA	23834
Dishman's	David W Johnson	P O Box 472		Colonial Heights	VA	23834
Dominos Pizza	G & M Pizza	2227	Boulevard	Colonial Heights	VA	23834
Don Jose #2 Inc	Don Jose #2 Inc	3609	Boulevard	Colonial Heights	VA	23834
El Caporal	Zito, LLC	241 Suite 8	Charles Dimmock Pkwy	Colonial Heights	VA	23834
Five Guys Famous Burgers		707	Southpark	Colonial Heights	VA	23834
The Flaming Pit	ABA LLC	2231	Boulevard	Colonial Heights	VA	23834
Golden Corral	ESC Restaurants Inc	2501	Conduit Rd	Colonial Heights	VA	23834
Great China Buffet Inc	Great China Buffet Inc	1829	Southpark Blvd	Colonial Heights	VA	23834

Great Steak & Potatoe Co	S & G Cross Inc	366	Southpark Circle	Colonial Heights	VA	23834
Harris Auto Repair	Delmar J Shumate Jr	115	Boulevard	Colonial Heights	VA	23834
Jersey Mike's Subs	Wal Corp Inc	2011	Boulevard	Colonial Heights	VA	23834
Kentucky Fried Chicken	Kentucky Fried Chicken	1906 Suite B	Boulevard	Colonial Heights	VA	23834
Laines	JPF Inc	1621	Boulevard	Colonial Heights	VA	23834
Tom Lewis Auto Sales	Tom Lewis	3620	Boulevard	Colonial Heights	VA	23834
Little Caesars		2104	Boulevard	Colonial Heights	VA	23834
Los Bandidos	Leopoldo Lugo	170	Southgate Square	Colonial Heights	VA	23834
Master Transmissions	RWRW Inc	636	Boulevard	Colonial Heights	VA	23834
McDonalds		411	Southpark Circle	Colonial Heights	VA	23834
McDonalds		1101	Boulevard	Colonial Heights	VA	23834
Mi Rodeo Mexican Grill	Los Primos De Jal LLC	2208	Boulevard	Colonial Heights	VA	23834
Motorcycle Authority Inc	Motorcycle Authority	3008	Boulevard	Colonial Heights	VA	23834
	New Chinamen's Buffet of Dong's					
New Chinamen's Buffet	Inc	200	Southgate Square	Colonial Heights	VA	23834
No 1 New China	No 1 New China	34	Dunlop Shopping Center	Colonial Heights	VA	23834
Oxford Motor Company, LLC	Oxford Motor Company, LLC	119-B	Boulevard	Colonial Heights	VA	23834
Padow's Hams & Deli	Mariett Inc	648-A	Southpark Blvd	Colonial Heights	VA	23834
The Paint Warehouse	J & P of Petersburg Inc	1410	Boulevard	Colonial Heights	VA	23834
J E Perdue, Landscaping	Joseph Edward Perdue Jr	500	Dupuy Ave	Colonial Heights	VA	23834
Pino's Italian Restaurant	Marcello Crapa	3420	Boulevard	Colonial Heights	VA	23834
Pleasure Island Seafood	Pleasure Island Seafood Inc	3650	Boulevard	Colonial Heights	VA	23834
Quiznos Sub	Fazdins Inc	458	Charles Dimmock Pkwy	Colonial Heights	VA	23834
Sino Wok Chinese Eatery	Ying Qing Yang & Yan Qing Jiang	388	Southpark Circle	Colonial Heights	VA	23834
Staples Automotive	Colonial Heights Auto Parts I	1907	Boulevard	Colonial Heights	VA	23834
Stir Fry 88 of Southpark Mall Inc	Stir Fry 88 of Southpark Mall Inc	378	Southpark Mall	Colonial Heights	VA	23834
Subway #23642	Shree Shiv Co	501	Southpark Blvd	Colonial Heights	VA	23834
Subway #38026	Desjardins Ent Ltd Inc	671	Southpark Blvd	Colonial Heights	VA	23834
Subway #42545	Epieikeia Ent Ltd Inc	381	Southpark Circle	Colonial Heights	VA	23834
Taco Bell #16941	Burger Busters IV LLC	628	Southpark Blvd	Colonial Heights	VA	23834
Top's China	Song Yang	3107- 11	Boulevard	Colonial Heights	VA	23834
Tuffy Muffler	Lizco Inc	1115	Boulevard	Colonial Heights	VA	23834
Uppy's IX	Uppy's Convenience Stores Inc	961	Temple Ave	Colonial Heights	VA	23834
Vincenzo's Restaurant	Vincenzo's Restaurant Inc	609	Boulevard	Colonial Heights	VA	23834
Virginia Liftmaster 4X Specialist	Rodney Parlow & Mark Hinds	405	Ellerslie Ave	Colonial Heights	VA	23834

Wagstaff Steak House The
What-A-Burger

Danny Wagstaff
Jack T Branch

3737
1018

Boulevard
Boulevard

Colonial Heights
Colonial Heights

VA
VA

23834
23834

LICENSE NO	ALTERNATIVE CONTACT	FACILITIES	TYPE OF DISCHARGE	PAST VIOLATIONS
20090281				
20090899				
20091039				
20090404				
20090085				
20090366				
20090454				
20090860				
20090945				
20091049				
20091512				
20090742				
20090519				
20090656				
20090959				
20090037				
20091042				
20090134				
20090160				
20091895				
20090327				
20091743				
20091356				
20091851				
20091468				
20090033				
20090196				
20091613				
20091540				
20091843				
20090416				
20090255				

20090954
20090803
20091131

20090458
20090460
20090301
20091149
20091281
20090259
20090472
20091153
20090230
20091488

20090935
20090138
20090767
20090893
20090335
20091545
20091150
20090866
20091536

20091627
20090406
20090177
20090445
20091389
20091516
20091268
20090996
20090553
20091669
20090500
20091561

20090284

20090469

2013 POTENTIAL ILLICIT DISCHARGERS by INDUSTRY

TRADE NAME	FULL NAME	ADDRESS #	STREET NAME	CITY	STATE	ZIP	LICENSE NO	ALTERNATIVE CONTACT	FACILITIES	TYPE OF DISCHARGE	PAST VIOLATIONS
Adams, Walter A - Builder Inc	Walter A Adams	P O Box 1044		Colonial Heights	VA	23834	20090179				
All American Home Improvement	John Morelle II	211	Marvin Ave	Colonial Heights	VA	23834	20091678				
B & T Excavating LLC	B & T LLC	104	Winston Ave	Colonial Heights	VA	23834	20091271				
Richard Bogese Builders Inc	C Richard Bogese Jr	206-D	Temple Ave	Colonial Heights	VA	23834	20090330				
BRY Builders	Bryant W Akins	316	Pickett Ave	Colonial Heights	VA	23834	20090191				
Buchanan & Rice Contractors Inc	Buchanan & Rice Contractors Inc	1811	Ruffin Mill Circle	Colonial Heights	VA	23834	20090682				
Cana Contractors	Joon Jeong	317	Yorktown Dr	Colonial Heights	VA	23834	20091407				
F J Childers Construction	Frank J Childers	897	Conduit Rd	Colonial Heights	VA	23834	20091225				
City Wide Construction Co	Timothy E Francis Sr	220	Virginia Ave	Colonial Heights	VA	23834	20090224				
Colonial Construction	Stephanie Wilson	405	Cloverhill Ave	Colonial Heights	VA	23834	20091221				
Richard L Crowder Construction Inc	Richard Crowder	P O Box 2125		Petersburg	VA	23804	20090117				
Daniels Masonry Contractors Inc	Daniels Masonry Contractors Inc	P O Box 1274		Colonial Heights	VA	23834	20090692				
DanRich Construction Co Inc	DanRich Construction Co Inc	117-C	Orange Ave	Colonial Heights	VA	23834	20091249				
Dietze Construction Group Inc	Dietze Construction Group Inc	45155 Suite 300	Research Place	Ashburn	VA	20147	20091186				
Divine Custom Builders	Michael Sawyer	200 Apt 1	Beechwood Ave	Colonial Heights	VA	23834	20090163				
Dunn Right Construction Inc	R L Dunn III	P O Box 532		Colonial Heights	VA	23834	20090930				
Tommy Dykes Construction	Tommy Dykes	902	E Westover Ave	Colonial Heights	VA	23834	20090863				
John Edward Construction	John Edward Johnson	218	Lafayette Ave	Colonial Heights	VA	23834	20090938				
Gibbs Masonry & Construction Inc	Lewis E Gibbs Jr	P O Box 834		Colonial Heights	VA	23834	20091009				
RM Hahn, Jr General Contractor	Richard M Hahn Jr	412	Whipporwill Ct	Colonial Heights	VA	23834	20091003				
JD Hauser Construction	Tara B Hauser	801	Old Town Dr	Colonial Heights	VA	23834	20090083				
Gilbert Martin Co Inc	Gilbert Martin	117	Roanoke Ave	Colonial Heights	VA	23834	20090354				
Moore Paving Company	Walter D Moore	309	W Ellerslie Ave	Colonial Heights	VA	23834	20091362				
Oasis Contracting Inc	Oasis Contracting Inc	1148	Peace Cliff Ct	Colonial Heights	VA	23834	20091550				
Perkinson Custom Homes	Dwayne R Perkinson	112	Waterfront Dr	Colonial Heights	VA	23834	20090997				
R & D Sealcoating	David P Hoopsick	401	Dupuy Ave	Colonial Heights	VA	23834	20090628				
R & R Concrete	Robert C Rollinson III	P O Box 1073		Colonial Heights	VA	23834	20090627				
R H Construction	Richard B Heuermann	318	Comstock Dr	Colonial Heights	VA	23834	20091239				
Real Deal Contracting	Patrick Stevens	1314	Canterbury Lane	Colonial Heights	VA	23834	20091837				
Robinette Construction Co Inc	Dwight Kelly Robinette	2004	Snead Ave	Colonial Heights	VA	23834	20091438				
Saunders Construction	David A Saunders	212	Moore Ave	Colonial Heights	VA	23834	20090007				
B P Short & Son Paving Co Inc		P O Box 2007		Petersburg	VA	23804	20090162				
Slurry Pavers Inc		1277	Mountain Rd	Glen Allen	VA	23060	20091507				
Southern Construction Inc		P O Box 667		Petersburg	VA	23804	20090006				
Square D Construction	Danny L Mayes	1705	Franklin Ave	Colonial Heights	VA	23834	20091606				
Sun General Contracting	Petros N Megariotis	411	Cloverhill Ave	Colonial Heights	VA	23834	20091387				
Waskey Construction LLC	Waskey Construction LLC	P O Box 948		Colonial Heights	VA	23834	20091603				
J S Wood Builder LLC	J S Wood	4700	Ridgecrest Lane	Colonial Heights	VA	23834	20090332				
Xtreme Structures	Donald Wayne Hogue	1101	Conduit Rd	Colonial Heights	VA	23834	20090407				

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
JULY							

Total Acreage = 0

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
AUGUST	SOUTHPARK SQUARE SHOPPING CTR	1901,1903,1905,1907,1909 &	McCormick Realty Ltd. Partnership	1954 Greenspring Drive Timonium, MD 21093	(410) 684-2000	8/12/2013	2.94
		1955 Southpark Boulevard					

Total Acreage = 2.94

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
SEPTEMBER							

Total Acreage = 0

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
OCTOBER	Chick-Fil-A Southpark Boulevard	651 Southpark Boulevard	Chick-Fil-A, Inc.	Matthew Stellmaker/5200 Buffington Rd. Atlanta, GA 30349	(404) 765-2732	10/1/2013	1.05

Total Acreage = 1.05

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
NOVEMBER							

Total Acreage = 0

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
DECEMBER							

Total Acreage = 0

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
JANUARY							

Total Acreage = 0

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
February	Appomattox Trail Phase 3	Colonial Heights, VA	Dickerson Construction	4920 Millridge Pkwy #214, Chesterfield, VA 23112	804-744-7152	2/19/2014	2
	Golden Corral	2501 Conduit Rd	Southern Construction	1774 Fine St, Prince George, VA 23875	804-733-5985	2/27/2014	0.85

Total Acreage = 2.85

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
March							

Total Acreage = 0

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
April							

Total Acreage = 0

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
May							

Total Acreage = 0

2013-14 Monthly Report of Land Disturbance Activities for the City of Colonial Heights

Month	Project Title	Project Address	Owner/Applicant	Owner/Applicant Address	Owner/Applicant Contact No	Date Issued	Total Disturbed
June							

Total Acreage = 0

TR 55 Worksheet 2: Runoff Curve Number and Runoff

Project: Overall Discharge - Colonial Heights Designed By: _____ Date: _____

Location: City of Colonial Heights Checked: _____ Date: _____

Check one: Present Developed

1. Runoff curve number (CN)

Soil name and hydrologic group (Appendix A)	Cover description (Cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN ^{1/}			Area <input checked="" type="checkbox"/> acres <input type="checkbox"/> mi ² <input type="checkbox"/> %	Product of CN x area
		Table 2-2	Fig. 2-3	Fig. 2-4		
	33% Impervious		73		4,800.0	350,400.0
Totals =					4,800.0	350,400.0

^{1/} Use only one CN source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{350,400.0}{4,800.0} = 73 \quad \text{Use CN} = \boxed{73}$$

2. Runoff

Frequency years

Rainfall, P (24 hour) in.

Runoff, Q in.

(Use P and CN with Table 2-1, Figure 2-1, or equations 2-3 and 2-4.)

Storm #1	Storm #2	Storm #3
2	10	100
3.5	5.5	8.0
1.2	2.7	4.8

TR 55 Worksheet 3: Time of Concentration (T_c) or Travel Time (T_t)

Project: Overall Discharge - Colonial Heights Designed By: _____ Date: _____

Location: City of Colonial Heights Checked By: _____ Date: _____

Check one: Present Developed

Check one: T_c T_t through subarea _____

NOTES: Space for as many as two segments per flow type can be used for each worksheet. Include a map, schematic, or description of flow segments.

Sheet Flow (Applicable to T_c only)

Segment ID

--	--

1. Surface description (Table 3-1)
2. Manning's roughness coeff., n (Table 3-1)
3. Flow length, L (total L ≤ 100 ft) ft
4. Two-year 24-hour rainfall, P₂..... in
5. Land slope, s ft/ft
6. T_t = $\frac{0.007 (nL)^{0.8}}{P_2^{0.5} s^{0.4}}$ Compute T_t hr

33% Impervious	
0.01	
27,444	
3.5	
0.010	
2.27	+
=	
	2.27

Shallow Concentrated Flow

Segment ID

--	--

7. Surface description (paved or unpaved)
8. Flow length, L ft
9. Watercourse slope, s ft/ft
10. Average velocity, V (Figure 3-1) ft/s
11. T_t = $\frac{L}{3600 V}$ Compute T_t hr

	+
=	

Channel Flow

Segment ID

--	--

12. Cross sectional flow area, a ft²
13. Wetted perimeter, P_w ft
14. Hydraulic radius, r = $\frac{a}{P_w}$ Compute r ft
15. Channel Slope, s ft/ft
16. Manning's Roughness Coeff., n
17. V = $\frac{1.49 r^{2/3} s^{1/2}}{n}$ Compute V ft/s

18. Flow length, L ft
19. T_t = $\frac{L}{3600 V}$ Compute T_t hr

	+
=	

20. Watershed or subarea T_c or T_t (add T_t in steps 6, 11, and 19) hr

2.27

Tr 55 Worksheet 4: Graphical Peak Discharge Method

Project: Overall Discharge - Colonial Heights Designed By: _____ Date: _____

Location: Colonial Heights Checked By: _____ Date: _____

Check one: Present Developed

1. Data:

Drainage area $A_m = \underline{7.40}$ mi² (acres/640)

Runoff curve number CN = 73 (From Worksheet 2)

Time of concentration $T_c = \underline{2.20}$ hr (From Worksheet 3)

Rainfall distribution type = II (II, III, DMVIII)

Pond and swamp areas spread throughout watershed = _____ percent of A_m (_____ acres or mi² covered)

	Storm #1	Storm #2	Storm #3
2. Frequency..... yr	2	10	100
3. Rainfall, P (24-hour)..... in	3.5	5.5	8.0
4. Initial abstraction, I_a in (Use CN with Table 4-1.)	0.740	0.740	0.740
5. Compute I_a/P	0.21	0.13	0.09
6. Unit peak discharge, q_u csm/in (Use T_c and I_a/P with exhibit 4- <u>II</u>)	200	220	240
7. Runoff, Q in (From Worksheet 2)	1.10	2.60	4.60
8. Pond and swamp adjustment factor, F_p in (Use percent pond and swamp area with Table 4-2. Factor is 1.0 for zero percent pond and swamp area.)	1.0	1.0	1.0
9. Peak discharge, q_p cfs (Where $q_p = q_u A_m Q F_p$)	1,628	4,233	8,170

The Simple Method to Calculate Urban Stormwater Loads

Introduction

The Simple Method estimates stormwater runoff pollutant loads for urban areas. The technique requires a modest amount of information, including the sub-watershed drainage area and impervious cover, stormwater runoff pollutant concentrations, and annual precipitation. With the Simple Method, the investigator can either break up land use into specific areas, such as residential, commercial, industrial, and roadway and calculate annual pollutant loads for each type of land, or utilize more generalized pollutant values for land uses such as new suburban areas, older urban areas, central business districts, and highways.

Stormwater pollutant concentrations can be estimated from local or regional data, or from national data sources. Tables 1 through 3 summarize pollutant concentration data for Total Suspended Solids (Table 1), Total Phosphorous (Table 2), and Total Nitrogen (Table 3) for residential, commercial, industrial, and roadway land uses, and identify default values. Table 4 identifies pollutant concentration values for Phosphorus, Nitrogen, COD, BOD, and some metals for more generalized land use categories. In general, the selected data sources are nationwide in scope, or are summaries of several regional studies. Some studies included in these data did not characterize stormwater concentrations for specific land uses, and instead reported a concentration for "urban runoff." In these instances, the data are reported as the same concentration for each land use in Tables 1 through 3.

Fecal coliform is more difficult to characterize than other pollutants. Data are extremely variable, even during repeated sampling at a single location. Because of this variability, it is difficult to establish different concentrations for each land use. Although some source monitoring data exists (Steuer *et al.*, 1997; Bannerman *et al.*, 1993), the simple method assumes a median urban runoff default value, derived from NURP data (Pitt, 1998), of 20,000 MPN/100ml. For more information on sources and pathways of bacteria in urban runoff, consult Schueler (1999).

The Simple Method estimates pollutant loads for chemical constituents as a product of annual runoff volume and pollutant concentration, as:

$$L = 0.226 * R * C * A$$

Where: L = Annual load (lbs)
R = Annual runoff (inches)
C = Pollutant concentration (mg/l)
A = Area (acres)
0.226 = Unit conversion factor

For bacteria, the equation is slightly different, to account for the differences in units. The modified equation for bacteria is:

$$L = 1.03 * 10^{-3} * R * C * A$$

Where: L = Annual load (Billion Colonies)
R = Annual runoff (inches)
C = Bacteria concentration (#/100 ml)
A = Area (acres)
 $1.03 * 10^{-3}$ = Unit conversion factor

Annual Runoff

The Simple Method calculates annual runoff as a product of annual runoff volume, and a runoff coefficient (Rv). Runoff volume is calculated as:

$$R = P * P_j * R_v$$

Where: R = Annual runoff (inches)

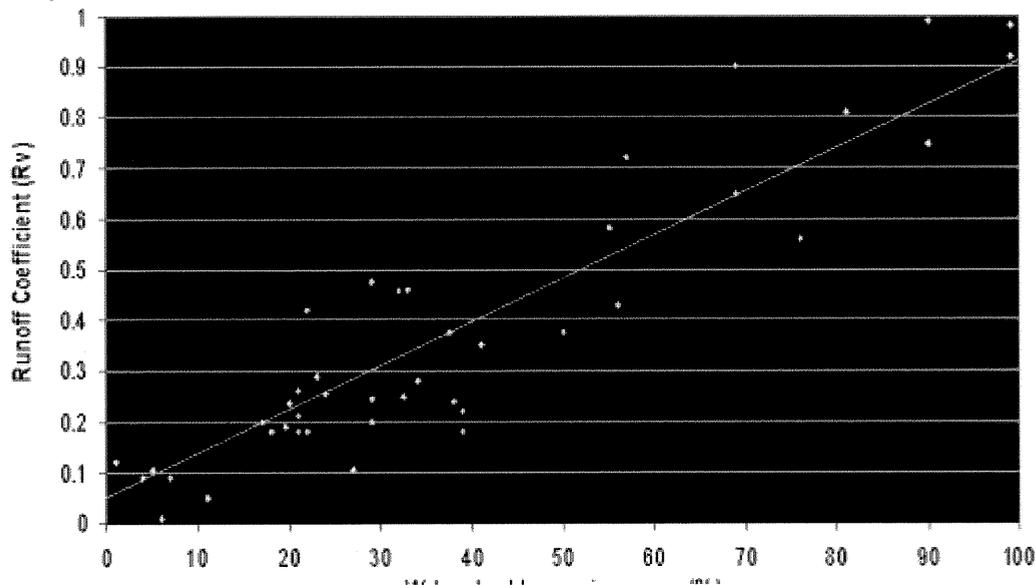
P = Annual rainfall (inches)

P_j = Fraction of annual rainfall events that produce runoff (usually 0.9)

R_v = Runoff coefficient

In the Simple Method, the runoff coefficient is calculated based on impervious cover in the sub-watershed. This relationship is shown in Figure 1. Although there is some scatter in the data, watershed imperviousness does appear to be a reasonable predictor of R_v .

Relationship Between Watershed Imperviousness (I)
and the Storm Runoff Coefficient (R_v)
(Source: Schueler, 1987)



The following equation represents the best fit line for the dataset (N=47, $R^2=0.71$).

$$R_v = 0.05 + 0.9I_a$$

Where: I_a = Impervious fraction

Impervious Cover Data

The model uses different impervious cover values for separate land uses within a sub-watershed. Representative impervious cover data, along with Model default values, are presented in [Table 5](#). A study is currently being conducted by the Center for Watershed Protection under a grant from the U.S. Environmental Protection Agency to update impervious cover estimates for these and other land uses. The results of this study will be available by 2001. In addition, some jurisdictions may have detailed impervious cover information if they maintain a detailed land use/land cover GIS database.

Limitations of the Simple Method

The Simple Method should provide reasonable estimates of changes in pollutant export resulting from urban development activities. However, several caveats should be kept in mind when applying this method.

The Simple Method is most appropriate for assessing and comparing the relative stormflow pollutant load changes of different land use and stormwater management scenarios. The Simple Method provides estimates of storm pollutant export that are probably close to the "true" but unknown value for a development site, catchment, or sub-watershed. However, it is very important not to over emphasize the precision of the results obtained. For example, it would be inappropriate to use the Simple Method to evaluate relatively similar development scenarios (e.g., 34.3% versus 36.9% Impervious cover). The simple method provides a general planning estimate of likely storm pollutant export from areas at the scale of a development site, catchment or sub-watershed. More sophisticated modeling may be needed to analyze larger and more complex watersheds.

In addition, the Simple Method only estimates pollutant loads generated during storm events. It does not consider pollutants associated with baseflow volume. Typically, baseflow is negligible or non-existent at the scale of a single development site, and can be safely neglected. However, catchments and sub-watersheds do generate baseflow volume. Pollutant loads in baseflow are generally low and can seldom be distinguished from natural background levels (NVPDC, 1979). Consequently, baseflow pollutant loads normally constitute only a small fraction of the total pollutant load delivered from an urban area. Nevertheless, it is important to remember that the load estimates refer only to storm event derived loads and should not be confused with the total pollutant load from an area. This is particularly important when the development density of an area is low. For example, in a large low density residential sub-watershed (Imp. Cover < 5%), as much as 75% of the annual runoff volume may occur as baseflow. In such a case, the annual baseflow nutrient load may be equivalent to the annual stormflow nutrient load.

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Annual Runoff:

R = Annual Runoff (inches)

P = Annual Rainfall (inches)

P_j = Fraction of annual rainfall events that produce runoff (usually 0.9)

R_v = Runoff Coefficient

<i>P</i>	<i>P_j</i>	<i>R_v</i>
45.26	0.90	0.32

R = 13.03

Bacteria Concentration: 20,000 MPN / 100 ml.

L = Annual Load (Billion Colonies)

R = Annual Runoff (inches)

C = Bacteria Concentration (#/100ml)

A = Area (acres)

<i>R</i>	<i>C</i>	<i>A</i>
13.03	200.00	4,800.00

L = 12,888.89

**Colonial Heights Annual
Stormwater Report FY14**

Appendix H

City of Colonial Heights
Stormwater Volume and Pollutant Load Estimation for Watershed with an Identified WLA

Discharge Volumes and Pollution Loads have all been estimated using Simple Method
Calculations

Impervious Area (%)	33	From CDM Stormwater Report 2008
Annual Rainfall (in)	48.1	From NOAA National Climatic Data

Watershed with WLA	Drainage Area (ac)	Discharge Volume (ft3)	E.Coli (cfu/yr)
Appomattox River (NT)	618	3.56E+07	4.08E+07
Appomattox River (Tidal)	2318	1.34E+08	1.60E+08
Swift Creek	1946	1.12E+08	1.34E+08



Developing a Stormwater-friendly Lawn

How >

Many people think maintaining a perfectly manicured landscape or green and plush yard involves harsh chemicals, plenty of pesticides and an endless amount of work, when actually, something of the opposite is true. While maintaining a picture-perfect landscape does require hard work and time, home-owners can save significant amounts of money, time and toil by utilizing a few natural products and taking some natural factors into account in their landscape planning. With a combination of organic products and some advanced planning, lawns and landscapes can be lush and hearty, while at the same time contributing far fewer pollutants to our surrounding waters.

Getting started >

Getting started is easy. There are many great books and guides available that detail all the methods to get you started and the materials you'll need. Your local book retailer can point you in the right direction, but the links below can help as well:

<http://chlibrary.colonial-heights.com/cataloging/servlet/handlebasicsearchform.do>

www.organiclandscape.org/en/Books_27.html

<http://library.co.chesterfield.va.us/search/w?SEARCH=organic+gardening>

www.epa.gov/npdes/pubs/waterefficiency.pdf

A first step >

One of the first things to do is get your lawn's soil sampled. Start by collecting a sample of your soil - a garden shovel scoop at least 4" deep without rocks - and take it to a local lawn and garden store. Many home and garden stores have do-it-yourself tests for sale, and some extension offices offer services that test your sample at a lab. Testing your soil will help you know the exact types and quantities of fertilizers your lawn needs rather than buying the kinds and amounts of nutrients your lawn may already have an abundance of. The key to successful fertilization is getting the right mixture of quality and quantity. Learn more about getting a soil test:

<http://www.ext.vt.edu/pubs/compost/452-129/452-129.html>

www.soiltest.vt.edu/soiltest.html

Fertilizing >

Once you've gotten the results of your soil test you'll know what nutrients your lawn needs or has an excess of. Finding natural substitutes for the traditional synthetic fertilizers is much easier than you might think, and these natural fertilizers are often more effective and less damaging than synthetics. Manures, dried blood, feather and bone meal, for example, can be used to add nitrogen to your lawn, and are less likely to burn turfgrass or cause rapid growth spurts due to their slow release properties. Because of this, these natural fertilizers may provide longer lasting benefit to your lawn and are much less apt than are water-soluble fertilizers to leach from the soil, thus reducing the ground and surface-water contamination commonly seen with synthetic fertilizers.

Important to understanding what natural fertilizers your lawn will need is knowing what levels of which nutrients are contained in any given compound or fertilizer. One thing that will help you determine this is NPK numbers. The make-up of fertilizers is determined by the three numbers on their packaging - 10-10-10, for example - each of which represent the percentage of nitrogen (N), phosphorous (P) or potassium (K) the compound contains. Each of these nutrients is important for proper plant growth

and development. Nitrogen helps plant foliage grow strong. Phosphorous helps roots and flowers grow and develop. Potassium (Potash) is important for overall plant health.

While many types of natural compounds can be used as fertilizers, some common fertilizing compounds are:

Bat Guano

Bat guano is the ultimate 100 percent natural fertilizer. Farmers and gardeners have used bat guano as a fertilizer for hundreds of years. Bat guano has a high humus content and works great as a soil builder and fertilizer. It is rated as a 10-3-1 fertilizer.

Fish Meal

Fish meal is a natural organic fertilizer that was traditionally used by gardeners and farmers before the advent of inorganic fertilizers. It contains important trace elements that make it a complete plant food. Rated as a 10-5-0 organic fertilizer, fish meal works quickly and provides plenty of phosphorous and organic nitrogen.

Kelp

Kelp meal fertilizer is made from brown seaweed harvested from ocean waters. The dried kelp maintains a high content of plant growth hormones, essential minerals and organic material. An added benefit is that kelp meal provides a slow, sustained release of nutrients, and works great for flowers, trees, and your lawn.

Garret Juice

Garret Juice, a highly effective liquid organic fertilizer mix, can be purchased ready-made in exact proportions or can be made at home. It contains compost tea, molasses, vinegar and seaweed and works as a foliar spray for all plants, ornamentals and food crops, or can be added directly to the soil. It works great on potted plants as well.

Kelp Lawn Starter

Organic kelp fertilizer is made from giant sea kelp and is specifically designed to help stimulate turf root growth, important for newly seeded lawns. It will also give your established lawn a quick boost, and as kelp is a slow release organic fertilizer, will work over time to keep your grass growing strong .

Organic Liquid Lawn Fertilizer

For a green, lush and chemical free yard, give your grass a dose of organic liquid lawn fertilizer. It is a great source of macronutrients, micronutrients, minerals, amino acids and peptides and has a NPK of 2-3-1. With this organic product the nutrients actually remain as solid amino acids in the soil, allowing for a slow release of nutrients that are absorbed thoroughly through the roots, minimizing waste. Your plants will absorb about 97 percent of the nutrients from this fertilizer, compared to the 20 percent which is more typical of chemical fertilizers.

Horticultural Cornmeal

Horticultural cornmeal helps to strengthen beneficial soil fungi. These beneficial soil organisms will help fight off the harmful fungi that can attack your plants, which is especially important for vegetable crops that are often susceptible to fungal diseases. Horticultural cornmeal also helps build up the quality of the soil, which will benefit all the plants in your garden, from grass to tomatoes. It can also be used it to safely remove algae from ponds and water features.

Garden Molasses

Garden molasses stimulates soil microorganisms and is a perfect compliment to organic fertilizers. It works as a foliar treatment when applied directly to the leaves of your plants, providing your plants trace minerals such as sulfur, potash, and iron.

For more information on types of organic fertilizers and the nutrients each provide, visit:

www.cmg.colostate.edu/gardennotes/234.pdf

www.basic-info-4-organic-fertilizers.com/organicfertilizers.html

Healthy maintenance >

Using organic fertilizers and soil amendments isn't the only thing that home-owners and gardeners can do to minimize their lawns' impact on Colonial Heights waters. There are several practices that can be obeyed to help your lawn naturally fight off disease, combat the effects of summer heat and naturally support itself. One of the easiest things to do is leave your grass clippings on the lawn as opposed to bagging or collecting them. Doing this will keep the nutrients that have already been absorbed by the existing grass' blades on the lawn, thus continuing to fertilize the turf and helping to

lessen the frequency of re-fertilization. In fact, one 1996 study suggests that mulching grass clippings into the lawn can, in some cases, eliminate the need of re-fertilization altogether. One common source of fertilizer runoff is over-watering. To prevent this, water at a rate of no more than 1/2 an inch per hour. Set several cans within your sprinkler's range and check how much water they collect every 15 minutes and adjust your sprinkler accordingly. Watering in the early morning, as well, is best. Plants and lawns allowed to stay wet overnight are more susceptible to disease. Keeping your lawn mowed at a regular height also acts as a natural defense. When mowing, make it a point to cut no more than 1/3 of the blade length, and remember to cut at a higher level than you might be used to. Increasing your mowing height to between 3 and 3 and one-half inches helps your lawn hold moisture and keeps the soil temperature cooler than it would be with shorter cut grass.

Building supporting landscape features >

All of us enjoy those perfectly manicured landscape features that accent the lawns we work so hard on. In planning these features and selecting the right foliage to plant them with, we can utilize designs that maximize our lawn's ability to sustain itself without unnecessary work and chemicals.

rain gardens >

Rain gardens are a great way to both accent and utilize those difficult or otherwise unusable spaces in the yard. Built essentially in the form of a slight depression filled with native plants, rain gardens can optimize low spots in your yard where water ponds. As another option, they can be placed at the base of slopes where water runoff from regularly fertilized turfs will feed the more nutrient-needy plant species that, in other areas of the yard, require more work. Rain gardens are often planted with bird, bee, and butterfly attracting species, and can really be an eye-catching addition to any landscape.



For plans on choosing and building the right rain garden for your landscape, visit:

- www.dof.virginia.gov/mgt/resources/pub-Rain-Garden-Tech-Guide_2008-05.pdf
- www.raingardennetwork.com/build.htm
- www.epa.gov/nps/toolbox/other/cwc_raingardenbrochure.pdf
- www.enterprise.mtu.edu/att/powerpoints/raingardens.ppt

utilizing the lay of your land >

Just as you would place a rain garden in a naturally low lying area, you can design your landscape areas to conserve water and maximize your fertilization applications. Many of the brightly colored and flowering species we all enjoy planting in the spring and summer require more fertilization than some of our native and less colorful species. Lilies and daylilies are popular selections, thriving in full sun to partial shade. Though they require adequate drainage and mulch to keep their roots cool, a down-slope area of your yard that borders frequently fertilized turf may be perfect for these, as they prefer soils high in organic matter. Iris, another favorite that prefer partial shade and well-drained soil, demand acidic soils amended with organic matter. Due to this they make attractive bed borders and color-fills for low spots. Dahlias, as well, thrive in full sun or partial shade and prefer moist, well-drained soil. Gladiolus summer bulbs thrive in full sun locations with moist soil that is well drained and has good air circulation. Cannas love the hot summer, growing well in full sun but needing rich soil and a good moisture supply. Because proper soil drainage is important for all these species to prevent bacterial rot, they all thrive in soils rich with organic matter and they all require concentrated nutrient levels, beds on down-slope areas or at well-drained bases of slopes may be perfect places to feature colorful plants like these. These 'border' or 'slope' beds will maximize your lawn's natural drainage while capturing the lawn's fertilizer runoff.



Learn more about sustainable landscaping at:

- www.ext.vt.edu/pubs/envirohort/vagardlist.html

Did you know?

...there are an estimated 25 to 30 million acres of turf lawn in the U.S.

...the average acre of maintained lawn receives roughly seven pounds of pesticides per year

...if lawns were classified as a crop, they would rank as the fifth largest crop in the nation

...over-doing lawn fertilizer causes plant roots to dehydrate, much like over-salting our food does to us

Using your plants for more than aesthetics >

Any landscape design requires planning. In much the same way that plants can be placed in areas where they utilize fertilizer and water runoff, landscape features can be built in a manner that makes plants as beneficial as they are attractive. With the aid of good resources and some preliminary landscape planning you can choose plants and arrangement patterns that help minimize your need for things like pesticides. Many plants repel certain types of insects due simply to their natural characteristics and the insects' aversion to them. Utilizing a method often referred to as companion planting, you can group certain kinds of plants, or surround insect-susceptible plants with insect repelling plants, to act as a natural insect repellent. Chrysanthemums and dahlias, for example, kill parasitic root nematodes (*tiny roundworms*). Daisies attract beneficial insects like the tiny and non-stinging parasitic wasp, which preys on pests like aphids, flies, beetles and caterpillars. Geraniums, in addition to herbs like angelica and tansy, attract ladybugs which feed aggressively on pests like aphids, mealybugs and spider mites. Marigolds, as well, ward off parasitic nematodes and certain types of beetles. Mint, which makes a good controlled accent plant, repels ants and some types of moths. It also helps to control rodents, flea beetles, and aphids. Citronella grass, as its name might indicate, deters mosquitoes, one of our peskiest backyard foes. These annual grasses can grow quite large, but can help alleviate some of your need for chemical mosquito repellents. Petunias repel pesky leaf-hoppers and several types of beetles. Nasturtium, a late-blooming flower, will repel the whitefly. When planning your next landscape or new lawn feature, take a look at the following resources for some great ideas on getting started companion planning.



Parasitic wasp

www.markham.ca/NR/rdonlyres/8937D562-A0B4-405E-A21C-CD01FC13481D/0/ens_insects.pdf
www.homeandgardensite.com/companion_planting.htm
<http://attra.ncat.org/attra-pub/complant.html>

Pesticides >

Fertilizers aren't the only substances that can be supplanted with organic substitutes. As we've seen, many plant species can help repel certain types of insects, but there are also natural substances and compounds that are effective in preventing pests. Milky Spore Grub Control - a compound made from *bacillus popilliae* spores - is a product that can be spread onto the lawn to provide a natural and effective grub control. Horticultural, cottonseed and soybean oils are effective pesticides for many types of ornamentals. Pyrethrins - naturally occurring insecticides made from the chrysanthemum - can be found in powder form and, though not long lasting, can produce fast and highly effective pest-killing results. Diatomaceous earth is a naturally occurring, chalk-like sedimentary rock that is crumbled into a fine white powder and used as a lawn insecticide. It absorbs lipids from the insects' exoskeletons and causes them to dehydrate, and is very effective for all types of bugs. For certain bugs, as well as crabgrass, try corn gluten. There are even natural plant pesticides you can make at home utilizing certain types of oils and citrus juices. The next time you need to apply a pesticide to your lawn or landscaping features, take a look at the following to gather some great ideas:

www.beyondpesticides.org/pesticidefreelawns/resources/index.htm
www.organiclawncare101.com/articles.html
http://vegetablegardens.suite101.com/article.cfm/organic_pest_control_and_pesticide
www.colostate.edu/Dept/CoopExt/4DMG/VegFruit/organic.htm

A Note on Bugs >

When landscaping and caring for our lawns, it is important to remember that not all bugs are bad. Of course, there are those types that are particularly burdensome and cause a lot of damage if left to their natural actions. Other types of bugs, however, are an essential part of any healthy backyard ecosystem and are in fact beneficial to our lawns and landscapes. The earthworm, though not actually an insect, converts organic material into nutrients that plants can absorb, loosens the soil making it easier for roots to grow and air and water to circulate in the soil, increases the soil's water retention capability, and brings minerals and other nutrients located deep in the soil to the top layer where they can be absorbed by the plants. Some species of ground beetles and certain species of ants, as well, are carnivorous and feed upon the pest insects found in many lawns. Spiders, though also not classified in the insect family, catch and eat many of the pests that commonly disturb our

...savings for a typical quarter-acre lot where clippings were left on the lawn amount to almost \$100 for fertilizer and plastic bags

...home-owners use 10 times the pesticides per acre that farmers use

...one acre of lawn costs \$400 to \$700 per year to maintain

lawns. The following chart shows some other insects that prey on the damaging insects in our yards.

Assassin bug	<i>Aphids, caterpillars, potato beetles, Japanese beetles, leafhoppers, Mexican bean beetles</i>
Damsel bug	<i>Aphids, leafhoppers, mites, caterpillars</i>
Big-eyed bug	<i>Aphids, caterpillar eggs and larvae, immature bugs, leafhoppers, spider mites</i>
Predacious stink bug	<i>Potato beetles, caterpillar larvae</i>
Syrphid fly larvae	<i>Aphids, mealybugs</i>
Lady beetle	<i>Aphids, mealybugs, spider mites</i>
Green lacewing larvae	<i>Insect eggs, aphids, spider mites, thrips, leafhopper nymphs, caterpillar larvae</i>
Trichogramma wasp	<i>200 pest insect eggs including cutworms, corn borers, corn earworms, armyworms, codling moths</i>
Encarsia wasp	<i>Greenhouse whiteflies</i>

Table 1 - Beneficial bugs (noted in green) and the pests they prey upon

Visit the links below for some great resources to help you start targeting the pests with the help of beneficial bugs.

- www.helpfulgardener.com/organic/2006/beneficial.html
- www.beneficialinsects101.com/garden-insects-article.html
- www.ext.colostate.edu/Pubs/water/xcm221.pdf
- www.ext.vt.edu/pubs/plantdiseasefs/450-725/450-725.html

Saving a lot >

The health of Colonial Heights' waters starts in our yards. Utilizing natural and organic fertilizers, pest repellants and organically-based planting and maintenance practices will help you save time, headaches and money, but will also keep a significant amount of chemicals from finding their way into Swift and Oldtown Creeks and the Appomattox River. With the help of some good resources and a little advanced planning, our lawns can be as healthy and attractive as our waters.



10 Easy Ways to Conserve Water



Do the following headlines sound familiar:

'Rainfall Four Inches Below Normal'... 'Groundwater Deficit'...
'Lake Chesdin at Low Levels'... 'Localities to Institute Water Restrictions'?

In a hot, dry Virginia summer, they should...

Our most important resource

All of us realize that water is an important resource in our lives, but sometime we forget just how important it is to our health, our welfare and our economy. About 60% of the human body, for example, is water. Muscle tissue is 75% water by weight, blood is 95% water, and the human heart is roughly 75% water. It takes 37 gallons of water to produce, package and ship the beans in your morning cup of coffee, and 4,200 gallons of water to produce just two pounds of beef.

It's clear, then, that water is entirely more important than we often give it credit for. The facts above, taken together with the fact that only about 1 to 2% of the world's water is suitable for human consumption, clearly demonstrate that it's an area where conservation is important.

Water mandates

We're all familiar with the dry months of July and August when our lawns dry up and we begin to hear headlines about low water levels and water restrictions. In Colonial Heights, Ordinance 07-26 authorizes water restrictions when "the Appomattox River Water Authority (ARWA) requests or directs such restriction or when the governor... or other state or federal authority, pursuant to applicable law, declares an emergency [or] imposes mandatory water conservation measures." Under this authority, the City Manager imposes either voluntary or mandatory usage restrictions, dependant upon the severity of the shortfall. The restrictions include limits on lawn and landscape watering, limits on the washing of paved areas, vehicle washing and pool filling, among other actions.

Penalties for violating mandatory restrictions include civil penalties ranging from \$50 dollars to \$400 dollars, and failure to pay any assessed penalty authorizes the City to collect the fine in any manner authorized for the collection of utility bills.

The good news about water conservation

We can help reduce the necessity for water restrictions like those mentioned by conserving water on a daily basis. The good news is that there are many easy steps we can take to limit or water usage and, by so doing, help conserve our most precious resource. Around the home, around the yard, and at work there are ways to conserve water that we may never have thought about before and that, with little effort and, in some cases, no added expense, can be incorporated into our daily routines. Remember, 1 to 2% of the world's water has to be shared between more than 6,710,000,000 people.



1. Check for leaks

Inside the home, checking for leaks can cut water usage by nearly 14 percent. Leaky toilets, for example, can waste as many as 30 gallons of water each day and dripping faucets can waste about 2,000 gallons of water each year. Leaky faucets, pipes and toilets are among the leading sources of water waste every year. Fixing them will not only help you conserve water, but could save you money on utility bills you probably didn't even know you were wasting.

2. Wash full loads

By washing clothes only when each load is a full load, you can save nearly half of the washing machine's capacity in water. Depending upon the size and settings of your washing machine, one load uses anywhere from 40 to 60 gallons of water. Washing only when each load is full inevitably lowers washing frequency, saves water and electricity; a savings you could notice in your water and electricity bills.

3. Be water-savvy in the kitchen

The kitchen presents some excellent opportunities for saving water. Instead of defrosting meats and other items by running them under water or letting them sit in a large container of water, plan ahead and allow your items to thaw in the refrigerator. This will save excess water and maximize electricity for which you are already paying. If you wash dishes by hand, use two basins: one for washing and another for rinsing. Doing so will save all the water you would normally use by leaving the rinse water running the entire time. As with the washing machine, only run the dishwasher when you have a full load. Instead of letting your faucet run a minute or two each time you want a glass of cold water, keep a jug or bottled waters in the refrigerator.

4. Run less - collect more

This might be the easiest one yet. When doing the routine things around the home, think about ways you can run less water and collect what you have run. For example, don't let the water run while shaving or brushing your teeth. Better, still, is brushing your teeth while showering - a great way to save both water and time. When doing things like rinsing fruits or meats, collect the water in a container below and use it to water plants. The excess water from cleaning out fish tanks, as well, is a great source for feeding thirsty plants. When bathing, ask yourself if you really need to fill the tub three-quarters of the way; four to five inches of bath water will get us just as clean.

5. Upgrade to save

When your old water heater goes out, or you have to replace it's elements yet again, consider getting an instant water heater. Several brands are now on the market, in both whole-house and point-of-use models. These water heaters are tankless, allowing you to conserve 60 or more gallons of

Cool facts about water...

Health & Body>

A person can go weeks, and sometime months, without food, but can only go about seven days without water.

A person needs at least 6 to 8 cups of water per day to replenish what we naturally lose .

Water makes up 95% of the contents of human blood.

Headaches are often caused by an insufficient amount of water in the body.

The human brain is roughly 80% water.

Drinking at least 8 glasses of water a day can help you lose weight by keeping your kidneys functioning at full strength, thereby metabolizing more fat.

If you feel thirsty, you are already partly dehydrated.

Caffeine often acts as a diuretic, depleting the body of water.

A 2% drop in our body's water supply can trigger signs of dehydration like fuzzy short-term memory, trouble with basic math, difficulty focusing on smaller print and daytime fatigue.

reserve while saving you money on your electric bill. You'll already be facing an expense on your old heater, and instead of rejuvenating it, an upgrade to an instant heater will save you a lot in the long run.

6. Build a rain barrel

Saving water is as easy and appropriate for the lawn and garden as it is inside the home. Building a rain barrel is an excellent way to conserve water by storing and utilizing the rain we do get during the times we do not get any. Rain barrels connect to a gutter downspout and have a built-in pump or spigot to release the water when you need it, and all are entirely sealed to prevent mosquitoes and animals from getting into them. You can buy a ready-to-use rain barrel or, by checking out the links below, build your own with little expense.

7. Water smartly

If you've made sure your spigot is leak-free, you can buy a timer for very little cost and set your sprinklers to water at, and for, ideal times. Watering is best between 2 and 7am because it ensures that no excess water is dried by the hot sun. Instead of watering once for 30 minutes or an hour, water for 15 minutes at three different intervals. This allows the water at each interval to soak in, preventing excess runoff caused by the rate of watering exceeding the rate of infiltration.

8. Back to the broom

During the dry summer months, use a broom or leaf blower to keep sidewalks, driveways and garage floors clean instead of rinsing them down with a water hose. A broom will do the trick without using all the excess water.

9. Go native

The new landscaping we all plan during the spring presents yet another opportunity to conserve water. Native plants, once established, are often heartier than plants not native to this area and are generally more adapted to our hot, dry summers. Plant choice and placement can greatly reduce the amount of water your landscaping requires.

10. Use your pool wisely

If you have a pool, there are several ways you can conserve water, both by protecting it and utilizing its contents. When back-flushing your filter, use the water on your plants and landscaping. Consider, also, getting a pool cover. This will help prevent water evaporation and, in so doing, reduce the amount and volume of necessary refills. There are many types of pool covers on the market: everything from roll-up covers to the handy, though more expensive, automatic pool covers. Additional benefits of keeping your pool covered are the facts that you'll have fewer insects and trash in it and have fewer concerns about unattended swimmers.

Cool facts about water...

Sources & Production >

11 gallons of water are used to irrigate and wash the fruit in one half-gallon jug of orange juice.

The average person uses anywhere from 75 to 110 gallons of water per day.

It takes 264 gallons of water to produce one quart of milk.

Oceans and seas contain 96% of the world's water, and 2% is contained in the world's icebergs.

Acting as an insulator, water helps regulate the earth's temperature.

80% of the earth's surface is water.

Nationally, people pay over 25 cents for their water utility on a daily basis.

An average of 20 gallons is used in a five-minute shower.

Water utilities process 38 billion gallons of water per day.

It takes 62,600 gallons of water to produce one ton of steel.

400 gallons of water are used to grow and produce 1 chicken.

Learn more...

Facts

- www.epa.gov/ogwdw/kids/water_trivia_facts.html
- www.epa.gov/safewater/sdwa/30th/factsheets/pdfs/fs_30ann_waterfacts_web.pdf
- www.allaboutwater.org/water-facts.html

Around the home

- www.deq.state.va.us/waterresources/waterconservation.html
- www.engr.uga.edu/service/extension/publications/c819-1.html
- www.americanwater.com/49ways.htm
- www.ext.colostate.edu/pubs/consumer/09952.html
- www.wateruseitwisely.com/100-ways-to-conserve/index.php

Conservation

- www.epa.gov/watersense/

Landscaping

- pubs.ext.vt.edu/426/426-713/426-713.html
- www.aces.edu/pubs/docs/A/ANR-0790/WQ1.3.4.pdf
- www.wateruseitwisely.com/100-ways-to-conserve/outdoor-tips/how-to/landscape-to-xeriscape/index.php
- http://www.dcr.virginia.gov/natural_heritage/nativeplants.shtml

Rain Barrels

- www.watershedactivities.com/projects/spring/rainbarl.html
- www.ehow.com/how_4615763_build-install-rain-barrel.html

Where does my water go?

Shower	up to 32 gallons for an 8-minute shower
Bath	31 gallons
Toilet	4 gallons per flush
Dishwashing	by hand: 8 gallons per wash
	machine: up to 24 gallons per wash
Clothes Washing	up to 66 gallons per wash for a large automatic
Car Washing	30 to 80 gallons
Garden Sprinkler	varies; 250 gallons per hour is not unusual
Dripping Tap	anywhere from 8 to 132 gallons per day
Leaking Pipe	up to 80 gallons per day

Visit the following to learn more about what groups in Virginia are doing to conserve:

VA Naturally
www.vanaturally.org/vanaturally/comm_water.html

Soil & Water Conservation Association
www.vaswcd.org/propertyowners.htm

VA Conservation Network
www.vcnva.org/anx/index.cfm/1,258,928,0,html/Water-Conservation-Tips

Soil & Water Conservation Society\VA Chapter
www.bse.vt.edu/swcs/

Department of Public Works
201 James Avenue
Colonial Heights, VA 23834
(804) 520-9334
www.colonial-heights.com/PublicWorks



OUR HAZARDOUS HOUSEHOLDS

There are three things that the winter season is certain to bring with it: chores, chores and chores! Inevitably, indoor projects, fall cleanings and holiday decorating require us to clean and reorganize areas in and around our homes. Fortunately for the space in our homes, these projects usually result in the accumulation and disposal of solid waste. Unfortunate for our local waterways, however, is the fact that solid debris is one of the most significant contributors to the amount of pollutants found in our waters. Man-made, solid material that enters our waterways, either directly or indirectly, accounts for roughly 86% of the trash found in Virginia's rivers and on Virginia's beaches.

The good news is that there are many simple steps each of us can take to reduce the amount of solid debris we produce. Practicing these will not only save our valuable water resources, they'll save us time, money and possibly backaches during our winter projects.

Reduce...Reuse...Recycle

Sure, it sounds cliché but if we really stop to think about the things we buy, why we buy them, and the amount that we use them, we can save ourselves significant expenditures and rid ourselves of a lot of household clutter. Since the easiest way to eliminate solid waste is by preventing it from ever becoming unwanted debris, try implementing the following steps around your home.

Reduce

- Look for items packaged with minimal packaging
- Buy in bulk when practical
- Avoid disposable, single-use items
- Buy concentrates
- Rent instead of buying; this works particularly well in cases where you'll only need the item a few times

Reuse

- Use cloth bags when shopping; most places offer a discount for this
- Pack your lunch in reusable food containers
- Use rechargeable batteries
- Use refillable pump/spray bottles
- Buy milk and water in refillable bottles

Recycle

- Participate in recycling programs; each item you recycle is likely one less that needs to be produced
- Buy recycled products; the recycling loop is not closed until we purchase products made from recycled materials



Reducing means less clutter, fewer backaches and more free time.

Remember

One half of all our household solid waste comes from the packaging of the things we buy.

It's estimated that 100 billion pieces of junk mail are delivered to mailboxes every year, an amount that requires 100 million trees to create. An estimated 30% of all mail delivered in the U.S. is junk mail, thrown away to become solid waste before its even opened. Take steps to cut down on your junk mail:

1. **Ask to be removed** - contact the [Direct Marketing Association](#) and ask to be removed from their affiliates' lists
2. **Ask for privacy** - when giving your name and info for any business transaction, ask that your info not be added to marketing lists
3. **Phone books** - consider an unlisted number, or request that the company list only your name and not your address
4. **Return to Sender** - any mail with *Address Correction Requested* or *Return Postage Guaranteed* can be returned unopened by writing *Refused-Return to Sender* on the envelope



The top 10 products recycled in 2009 were:

Computers
Batteries
Televisions
Paint
Aluminum Cans
Used Motor Oil
CFLs (Compact Fluorescent Lamps)
Glass
Fluorescent Lamps
Christmas Trees

Source: Earth911

7 Things You Probably Didn't Even Know Were Recyclable:

1. Batteries
2. Crayons
3. Wine Corks
4. Hair
5. Holiday Lights
6. Trophies
7. CDs/DVDs/Cassettes

THE GLOBAL LEADER

The United States have long led the world in many categories of global production. As with anything, this unfortunately means we lead the rest of the globe in some not-so-attractive categories. As of 2006, the United States produced around 236 million tons of waste annually, and by 2007 that number had increased to 254 million tons. The average American throws away nearly 5 pounds of trash on a daily basis. Despite making up only 5% of the world's population, the United States produce 30% of the world's waste. In only a year, Americans throw away around 26,800,000 tons of food, 8,550,000 tons of furniture and furnishings, and 6,330,000 tons of clothing and footwear.

Unfortunately, 80% of all products that are produced in the United States are used only once and then discarded, and 95% of plastic and 50% of all of the aluminum beverage cans that are thrown away never get recycled. By reducing, reusing and recycling we can help change these statistics, save ourselves time, money and backaches, and most importantly, help protect our invaluable water resources.

Table of Trash Types and Percentages		
Trash Type	Percentage	Tonnage
paper	40.4%	71.6 million tons
yard trimmings	17.6%	31.6 million tons
metals	8.5%	15.3 million tons
plastics	8.0%	14.4 million tons
food scraps	7.4%	13.2 million tons
glass	7.0%	12.5 million tons
other	11.6%	20.8 million tons (<i>rubber, leather, textiles, wood, miscellaneous inorganic wastes</i>)

According to the 2001 International Coastal Cleanup, these ten items accounted for 85% of all the litter debris found in and along Virginia's waters:

1. Cigarette butts/cigarette filters
2. Bags/food wrappers
3. Beverage bottles (plastic) 2 liters or less
4. Beverage bottles (glass)
5. Beverage cans
6. Cups, plates, forks, knives, spoons
7. Caps, lids
8. Fast-food containers
9. Straws, stirrers
10. Tobacco packaging/wrappers

Harmful Impacts of Debris

- ◆ Each year, more than 100,000 marine mammals die when they ingest littered debris.
- ◆ 2 million seabirds die every year due to debris ingestion and entanglement.
- ◆ According to the National Oceanic and Atmospheric Administration (NOAA), marine debris threatens over 265 different species of marine and coastal wild-life.
- ◆ Virginia's Department of Transportation (VDOT) spends more than \$6 million to remove litter from our roadsides.
- ◆ Millions of dollars are spent every year in Virginia and across the U.S. just to minimize the damage of littered debris.

Dollars and Sense

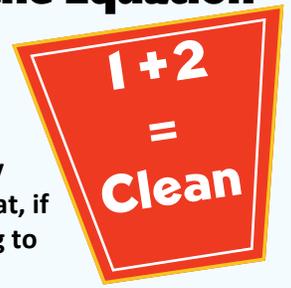
Practicing the "3 Rs" doesn't just protect our waters; it saves us money and that just makes good sense.

- Recycling one aluminum can saves enough energy to run a TV for three hours - or the equivalent of a half a gallon of gasoline.
- \$1 out of every \$11 Americans spend for food goes for packaging.
- One pound of recyclable aluminum is worth 85¢, on average.
- The average bottled water costs \$1.60; a savings of well over \$500 per year for a person who switches to a reusable bottle.



...the Other Part of the Equation

Solid waste is unfortunately just part of the danger our homes pose for our waters. Hazardous wastes are a significant source of the pollution in our rivers, streams, and lakes. Many of the harmful chemicals used in the cleaners, solvents and pesticides we use on a regular basis in and around our homes end up severely degrading the health and habitat of our watercourses. Holiday clean-up, winter room renovations and closet reorganizations all utilize solvents and chemicals that, if handled, used and disposed of in a more environmentally-friendly way, could be far less damaging to our waters.



Again, there are some simple things each of us can practice around the home to reduce the amount of hazardous waste we produce. In disposing of any chemical agents or solvents containing chemical agents, **NEVER** pour them down a floor drain or a storm sewer. The City Recycling Center, located behind the Sheetz on Conduit Road, accepts many types of chemicals and solvents. To find out more, call them at 479-7056 or visit their [website](#). For disposal of



Projects that clean the home don't have to jeopardize our waters.

insecticides, poisons, acids or other caustic compounds, appliances containing Polychlorinated Biphenyls (PCBs) or other toxic materials, please contact the [Central Virginia Waste Management Authority](#) at 800-732-3493 or [Safety-Kleen](#) at 804-748-3767. When storing, write the date of purchase on each item's

container with a permanent marker to keep a check on the age of any item and follow any and all disposal labels carefully. Keep all substances in their original containers and make sure to properly dispose of items if their containers have become corroded or unstable. Do the same for items intended for exterior use, but also make sure that any items such as these are stored above ground level, in a covered area, where there is no potential for them to come in contact with any

stormwater runoff. In the event that any chemicals or solvents leak or are spilled onto the ground or impervious surfaces like paved driveways or sidewalks, use absorbents and a broom and dustpan to clean them up rather than a water hose. Remember that ultimately, everything we dispose of - whether its yard waste or household chemical cleaners and solvents - can end up

impacting our local waters. Clean houses don't have to mean dirty waters.



LESS MEAN...MORE CLEAN

Household cleaners don't have to be as mean as they are to be effective. Many of them can be much less damaging to the environment than they currently are and yet be equally as effective in performing the cleaning task for which you need them.

Think alternatively:

Alternative cleaners generally refer to cleaners that can be made at home, using non-toxic or less toxic chemicals than those found in commercial cleaners. Some alternative cleaners still utilize synthetic products by substituting the most toxic ingredients for alternatives, while other alternative cleaners utilize all natural ingredients, staying entirely away from synthetics. The best way to decide which type of alternative works for you is to evaluate what your cleaning needs are specific to the types of stains or substances you find yourself regularly cleaning; some heavier commercial stains or substances might require a less toxic alternative, while many of the common household surfaces and stains are easily cleanable and removable using a non-toxic alternative.

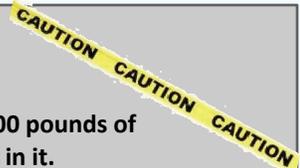
Ingredients common to many of the less toxic alternatives include the following:

Baking Soda - Cleans and deodorizes. Softens water to increase sudsing and cleaning power of soap. Good scouring powder.

Borax - Cleans and deodorizes. Excellent disinfectant. Softens water. Available in laundry section of grocery store.

Soap - Is non-toxic. Available in grocery stores and health food

HOME SWEET HAZARD



- The average home has 50 to 100 pounds of hazardous chemicals & solvents in it.
- American households generate 1.6 million tons of hazardous wastes annually.
- *Chlorine* - found in common household cleaners like bathroom disinfectants, window & oven cleaners, and furniture polish - is the #1 cause of child poisonings.
- Bathroom cleaners often contain *sodium hypochlorite*, a corrosive that irritates or burns skin & eyes, causes fluid in the lungs, & can lead to coma or death.
- Less than 2% of synthetic chemicals have been tested for toxicity, mutagenic, carcinogenic, or birth defects.
- An EPA survey concluded that indoor air could be as much as 70 times more polluted than outdoor air.
- National Cancer Association released results of a 15 year study concluding that women who work in the home are at a 54% higher risk of developing cancer than women who work outside the home.
- There are more than 3 million poisonings every year. Household cleaners are the #1 cause of poisoning of children.

stores. Sold as liquid, flakes, powder or in bars. Bars can be grated to dissolve more easily in hot water. Insist on soap without synthetic scents, colors or other additives.

Washing Soda - Cuts grease and removes stains. Disinfects and softens water. Available in laundry section of grocery store or in pure form from chemical supply houses as "sodium carbonate."

White Vinegar or Lemon Juice - Cuts grease and freshens.

Try the following recipes to begin making your home less toxic and less dangerous to our waters and our environment:

Household Cleaner -- Mix together:

1 tsp. liquid soap (castile, peppermint)

1 tsp. borax

Squeeze of lemon

1 qt. warm water

OR

¼ c. baking soda

½ c. borax

½ c. vinegar

1 gal. water

Window Cleaner -- Mix together:

2 tsp. vinegar

1 qt. warm water

OR

2 tbsp. borax

3 c. water

Mildew Remover -- Dissolve together:

½ c. vinegar

½ c. borax in warm water

Apply with sponge or spray bottle

Furniture Polish

(Wood Surfaces) --

Rub toothpaste on wood furniture to remove water marks.

Polish wood with 2 tsp. lemon oil and 1 pint mineral oil in spray bottle. Spray, rub in and wipe clean.

Mix two parts olive oil to one part lemon juice. After rubbing the mixture in, let stand for several hours and then polish with a soft, dry cloth.

Melt 1 tbsp. carnauba wax into two pints mineral oil. Use sparingly and rub hard.



Using alternative cleaners protects your family and our waters.

These are just a few of the [many alternative cleaner recipes](#) that you can utilize to help make your home much less toxic than it is now. By doing so, you'll be healthier and will also be helping protect our waters.

The Problem with Pills...

What's above our sinks can often be as dangerous to our waters as what's below them: pharmaceuticals are increasingly being discovered in the nation's waters and in the animals that inhabit them. Studies discovering antibiotics such as penicillin, tetracycline, and vancomycin as well as hormone-disrupting compounds like endocrine continue to demonstrate the threat that medicine disposal from homes poses to our waters and our health. In waters with significant enough quantities, these chemicals have been found to severely alter the reproduction of species, turning male fish to female. Even more, researches are increasingly concerned that the presence of antibiotics will result in the presence of 'superbugs', new strains of bacteria that are resistant to antibodies. Pharmaceuticals enter our waters when they are flushed down the toilet or dumped down the sink, as wastewater treatment plants are not equipped to filter them.

If no local collection option exists for you, mix all old or unused pills together with such undesirable items as used coffee grounds and kitty litter in a securely sealable bag and discard in the garbage. Never put them down a sink or flush them down a toilet!

o **Collecting Your Pet's Waste**

Animal waste is a significant contributor to the bacteria and pollutants found in our waters. It deposits harmful bacteria into our drinking, swimming, fishing and recreational waters. The Appomattox, much like our other waterways, contains high amounts of fecal coliform as a result of animal waste. Picking up after your pet is a simple and easy way to help decrease the amount of contaminants that end up in our waters. Virginia's Department of Conservation and Recreation (VDCR) lists the following 10 reasons why picking up pet waste benefits our environments:

1. *Stormwater carries pet waste and other pollutants directly into waterways.*
2. *Animal waste adds nitrogen to the water. Excess nitrogen depletes the water's oxygen, which is necessary for healthy underwater grasses, wildlife and fish.*
3. *Animal waste contains harmful organisms such as Giardia, Salmonella and E. coli that can be transmitted to humans and other animals by ingesting contaminated water.*
4. *Roundworms and hookworms deposited by infected animals can live in the soil for a long time and be transmitted to other animals and humans.*
5. *It's the law! Many urban and suburban areas require you to pick up after your pet. Even if there is no restriction, cleaning up after your pet is the right thing to do.*
6. *By joining the growing number of responsible pet owners, you might encourage hotel managers to accept pets when you're traveling and keep extra fees to a minimum.*
7. *Let's face it - no one likes to step in pet waste and spread it into homes, cars and businesses.*
8. *Scooping on a daily basis and applying lime will help prevent odors.*
9. *It's easy to clean up by carrying small plastic bags and paper towels in your pocket. The bags can be secured and thrown away in the garbage.*
10. *Your neighbors will appreciate the good manners.*

From Colonial Heights Stormwater Management Program website, available at

www.colonial-heights.com/StormwaterManagementSteps.htm

PET WASTE

TRANSMITS DISEASE

LEASH AND CLEAN
UP AFTER
YOUR PET



**PLEASE KEEP
THIS AREA
CLEAN**

DOG & POT



PLEASE CLEAN UP
AFTER YOUR DOG!



**FLORA M. HILL
PARK**
CITY OF
COLONIAL HEIGHTS
DEPARTMENT OF
RECREATION & PARKS

**TRESPASSING
AFTER DARK**



LORA M. HILL
PARK
CITY OF
COLONIAL HEIGHTS
DEPARTMENT OF
RECREATION & PARKS
NO
TRESPASSING
AFTER DARK

DOG WASTE

IS A THREAT TO THE HEALTH
OF OUR CHILDREN - DEGRADES
OUR TOWN - TRANSMITS DISEASE

LEASH - CURB AND
CLEAN UP
AFTER YOUR
DOG



ITS REQUIRED BY LAW!
MINIMUM FINE
\$ 25.00

What is Low Impact Development (LID)?

Have you ever wished you could simultaneously lower your site infrastructure costs, increase your project's marketability and protect the environment? You may have, but then you probably assumed that was impossible. With LID techniques, you can. LID is an ecologically friendly approach to site development and storm water management that aims to mitigate development impacts to land, water, and air. The approach emphasizes the integration of site design and planning techniques that conserve the natural systems and hydrologic functions of a site.



Low Impact landscaping utilizes techniques that conserve the natural systems and hydrologic functions of a site.

For more information visit the following:

- www.lowimpactdevelopment.org
- www.lid-stormwater.net/background
- www.epa.gov/nps/lid

Colonial Heights Department of Public Works

201 James Avenue
Colonial Heights, VA 23834

Phone: (804) 520-9334
Fax: (804) 520-9203

www.colonial-heights.com



Builder's Guide to Low Impact Development

Would you be interested in saving upwards of \$70,000* per mile in street infrastructure costs by eliminating one lane of on-street parking on residential streets? Did you know that communities designed to maximize open space and preserve mature vegetation are highly marketable and command higher lot prices? Are you aware that most homeowners perceive Low Impact Development practices, such as bioretention, as favorable since such practices are viewed as additional builder landscaping? Did you know that by reducing impervious surfaces, disconnecting runoff pathways, and using on-site infiltration techniques, you can reduce or eliminate the need for costly storm water ponds?



*Assumes paving costs of \$15/sq yd

LID Benefits

In addition to the practice just making good sense, LID techniques can offer many benefits to a variety of stakeholders.

Developers

- Reduce land clearing and grading costs
- Potentially reduce infrastructure costs (streets, curbs, gutters, sidewalks)
- Reduce storm water management costs
- Potentially reduce impact fees and increase lot yield
- Increase lot and community marketability

Municipalities

- Protect regional flora and fauna
- Balance growth needs with environmental protection
- Reduces municipal infrastructure and utility maintenance costs (streets, curbs, gutters, sidewalks, storm sewer)
- Increase collaborative public/private partnerships

Environment

- Preserve integrity of ecological and biological systems
- Protect site and regional water quality by reducing sediment, nutrient, and toxic loads to water bodies
- Reduce impacts to local terrestrial and aquatic plants and animals
- Preserve trees and natural vegetation

Case Study

Kensington Estates is a conventional development on 24 acres consisting of 103 single-family homes in Pierce County, WA. A study was conducted to redesign the site using a new state storm water model and to illustrate the full range of LID practices and technologies available to developers. Overall, the redesigned LID site could have:

- Resulted in construction cost savings of over 20%;
- Preserved 62% of the site in open space;
- Maintained the project density of 103 lots;
- Reduced the size of storm pond structures and eliminated catchments and piped storm conveyances; and
- Achieved “zero” effective impervious surfaces.

LID Site Planning and Design Concepts

Successful LID projects simultaneously reduce land development and infrastructure costs while protecting a property’s natural resources and functions. During the development process, the designer, developer, and reviewing agency should work together to identify solutions that integrate the following concepts:

- Preserve Open Space and Minimize Land Disturbance;
- Protect and Incorporate Natural Systems (wetlands, stream/wildlife corridors, mature forests) as Design Elements;
- Utilize Neo-Traditional Street and Lot Layouts and Designs; and
- Decentralize and Micromanage Storm Water at its Source Using LID Storm Water Management Practices.

LID and Storm Water Management

LID aims to mimic natural hydrology and processes by using small-scale, decentralized practices that infiltrate, evaporate, and transpire rainwater. Specifically, LID aims to:

- Minimize impervious surfaces;
- Disconnect hydrologic elements (roofs, downspouts, parking areas);
- Maintain/increase flow paths and times; and
- Utilize decentralized treatment practices.

Bioretention Areas

Storm water directed to these shallow topographic depressions in the landscape is filtered, stored, and infiltrated into the ground using specialized



vegetation and engineered soils.

Grassed Swales

Water moving through these systems is slowed, filtered, and percolated into the ground. These systems can act as low cost alternatives to curbs,



gutters, and pipes.

Help Protect Your Water!

from illegal dumping & illicit discharges...

CALL
520-2003

Illegal discharges are:

- * polluted dumping
- * contaminated runoff
- * discolored outfall discharge
- * improperly connected floor drains



Illegal discharges can:

- * contaminate our water
- * cause fish kills
- * destroy our recreational areas and resources

Illegal discharges can be both intentional & unintentional. Dumping oils, solvents or yard waste into a storm drain, oily or soapy runoff from a business, leaky & unattended oil or chemical storage units, & discolored or chemical-smelling discharges from a sewer outfall all constitute an illegal discharge. These illegal discharges are punishable by civil & criminal penalties. They damage the health of Swift Creek, Old Town Creek &



the Appomattox River, and endanger our recreational and drinking waters. You can help: call the City's illegal discharge hotline & report any polluted discharges you see.

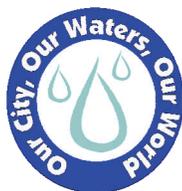
STOP Discharges...

CALL 520-2003

OR

REPORT ONLINE

Department of Public Works
City of Colonial Heights
201 James Avenue
Colonial Heights, VA 23834
(804) 520-9334



www.colonial-heights.com/PublicWorksStormWaterManagement

Anonymous callers welcomed

Citizens Action Center Home
Find Answers
Ask a Question
Make a Service Request
My Colonial Heights, VA

Service Request Type:

Stormwater Pollution

Description:

Report any miscellaneous stormwater pollution or illicit discharge.

*Location of incident (please be as specific as possible):

*Please check the type of stormwater pollution observed:

- Materials being dumped down storm drain or onto parking lots, roads, and walks
- Litter pile, dump, or stockpile
- Earthen materials accumulated in or near ditches or drains
- Soil erosion visible from construction and maintenance activities
- Vehicle leaking fuel or oil products
- Illegal storm drain connection - a non-stormwater connection to the storm drain system

Submit **Cancel**

From Colonial Heights Stormwater Management Program website, available at www.colonial-heights.com/StormwaterManagementSteps.htm



Colonial Heights DPW
November, 2009

Proposal for

Colonial Heights *Our Waters Award* Program

Summary

The Colonial Heights *Our Waters Award* will recognize businesses for outstanding environmental stewardship. The award will be geared toward the recognition of stormwater-friendly practices or initiatives assumed or adopted by businesses. It could also be tailored to incorporate recognition of all environmentally-friendly practices.

Our Waters Award would be an annual award granted to a selected business whose actions had, throughout the previous calendar year, exhibited the highest commitment to reducing the impacts of stormwater on Colonial Heights' waters. The winning business would be selected from a pool of applicants by a selection panel. *Our Waters Award* winner would hold that title for the period of one calendar year - from current award notification to announcement of the award winner for the following year.

Benefits for being selected would include recognition in the *City Focus* and on the City's website, amounting to free advertisement, decorative Certificate of Recognition, recognition at a City Council meeting, and could include a small, decorative placard for placement on the exterior of the awarded business and a monetary award donated by interested community sponsors (\$500 Home Depot, Office Max, etc. gift card).

Community-wide benefits of the *Our Waters Award* Program include the following:

- Increased public commitment to stormwater pollution prevention
- BMP incentives at a low budgetary cost
- Strengthened relations between City government and local business
- Fulfillment of a Consent Order action item on the City's MS4 Implementation Plan
- Potential for subsequent programs and cooperative efforts
- Increased public knowledge of the City's stormwater program and related efforts

I. Needs

Item	Pending	Anticipated	Expected
Guidance to businesses on decreasing stormwater impact	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Application	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Review panel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Award certificate(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Award placard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Corporate donor	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Director approval	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manager\Council approval (?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

II. Goals/Objectives

Primary goals for this program, as summarized above, include the following:

- Increased public commitment to stormwater pollution prevention
- Fulfillment of a Consent Order action item on the City's MS4 Implementation Plan
- BMP incentives at a low budgetary cost
- Increased public knowledge of the City's stormwater program and related efforts

III. Procedures/Scope of Work

Pending program approval, a review panel - City personnel, corporate donor representative (potentially) - would be established. The application and review process would be outlined and documented. The program would then be advertised and applications would be accepted at a given date - likely then end of November in order to award a winner in early January. Once received, applications would be reviewed per program protocol and a winner would be announced. Following announcement, the winner would be recognized via the *City Focus* and on the City's website, a decorative Certificate of Recognition, recognition at a City Council meeting, a decorative placard for placement on the exterior of the awarded business and a monetary award donated by the corporate sponsor(s).

IV. Timetable

Component	Start Date(s)	End Date(s)
Document construction	pending approval	(-)-30 days
Corporate donor solicitation	post-document construction	variable
Program advertisement	post-donor confirmation	ongoing November 30 (following advertisement)
Application receipt		

Application review

December 1

December 30
January 1 or later,
as applicable

Award announcement

v. Budget

Item

Anticipated Costs

Guidance to businesses on decreasing stormwater impact

produced internally

Application

produced internally

Review panel

likely internal

Award certificate(s)

produced internally

Decorative placard

(+/-)\$50

Corporate donor(s) award

\$500 - \$1,000

vi. Corporate Donor(s)

Appropriate corporate donor(s) would be Home Depot and/or Office Max or similar supply stores, as virtually every business uses products that these suppliers carry. Cooperation from such donors is anticipated as the amount(s) requested would be nominal.

vii. Next Steps

Pending approval, the timetable as outlined above could be enacted immediately. It should be noted that the date of *establishment* as indicated in the City's Consent Order is Quarter 1 of Fiscal Year 2010. No date for program *implementation* was identified in the Consent Order.

- Submit for discussion
- Revise as necessary
- Submit for approval
- See section IV.



Adopt-A-Waterway

Colonial Heights

A large portion of the City of Colonial Heights - both on and within its borders - is home to some invaluable and historic waters. The Appomattox River, Swift Creek and Old Town Creek furnish us a source of drinking water, provide us recreational activities and sustain our environment, and have been a source of food and travel from the pre-colonial era to the present. These waterways, their tributaries and associated habitats contribute to our City's character, natural beauty and value. Unfortunately, the more our City develops the greater the chance of our waters becoming littered with trash and debris. This deteriorates the health of our waterways and makes them much less attractive.

Want to help keep the City's waterways healthy?...

You can help protect the health, natural beauty and value of our waters by adopting a portion of a waterway for clean-up. By participating in the City's Adopt-A-Waterway program you'll be playing an active role in protecting the City's natural resources. You and your organization's clean-up team can be a valuable part of maintaining our waters and protecting our world.



How it works...

Participants or participating groups sign up to clean a segment of a waterway in Colonial Heights, twice a year for a minimum of two years. The City will provide collection bags for the clean-up activities, and participants will be asked to fill out a short reporting form after each clean-up. Due to the nature of clean-up, adult participation is encouraged, but individuals between the ages of thirteen and eighteen may participate with authorization and supervision.

How you'll help...

By adopting a waterway you'll be helping contribute to the future of Colonial Heights' natural resources. The more the City grows and develops, the more important it will become to ensure that our waters stay pristine and continue to fulfill their unique purpose in our environment. Your participation will help achieve this, and by participating you'll be setting an excellent example for citizenship and environmental stewardship. You and your group's efforts will be recognized in City publications and in various locations throughout the City.



Getting started...

Getting started is easy: fill out an application, available on the City's website or in the Department of Public Works, Engineering Division office at 201 James Avenue in Colonial Heights. Clean-up activities will be encouraged on predetermined dates in the spring and fall of the year, and once you've informed the City (48) hours prior to clean-up activities, you'll be on your way to protecting our waters and playing a valuable role in the health of our City.



Department of Public Works, City of Colonial Heights
201 James Avenue
Colonial Heights, Virginia 23834
(804) 520-9334

www.colonial-heights.com/PublicWorksStormWaterManagement.htm





CITY OF COLONIAL HEIGHTS

P.O. Box 3401
COLONIAL HEIGHTS, VA 23834-9001
WWW.COLONIAL-HEIGHTS.COM

Department of Public Works Staff Report to Council

Date of Council Meeting:

Date of Report:

Item Title: Recommendation for Resolution to authorize implementation of
Colonial Heights Adopt-A-Waterway Program

Summary and Recommendation:

Staff recommends that City Council adopt a Resolution to authorize the implementation of an Adopt-A-Waterway program. The program fulfills one of the 72 "best management practices" (BMPs) as agreed upon in the Consent Special Order (CSO) executed between the City of Colonial Heights and the Department of Conservation and Recreation (DCR) related to the City's municipal storm sewer system permit.

Background:

In 2008 the City signed a Consent Special Order (CSO) with the Department of Conservation and Recreation (DCR). This CSO stipulates 72 best management practices (BMPs) to which the City has agreed to accomplish within the 5-year deadline of its municipal storm sewer permit with the purpose of reducing the pollutants in the City's stormwater runoff. One such BMP is the adoption and implementation of an Adopt-A-Waterway program.

Department of Public Works, Engineering Division staff subsequently investigated comparable programs implemented in jurisdictions throughout Virginia. The City's geographic features were then evaluated to determine what areas and/or water bodies were appropriate for inclusion in the program. Guidance and participatory documents were drafted and reviewed by the City Attorney and are attached as Exhibit A.

Adopt-a-waterway programs are designed much like adopt-a-street/roadway programs, in that citizens and civic groups have the opportunity to select areas of the jurisdiction for clean-up of litter and debris on some predetermined schedule. The jurisdiction, in turn, provides some level of support for the citizen(s)/group(s) conducting the clean-up. Some programs utilize a "stream and streambank approach" where participants remove litter and debris from both the water body's channel and the water body's banks; others utilize merely a "streambank approach." The selection seems generally based upon safety concerns related to the navigability of the water body, as well as the conditions for traversing the water body's banks. As well, jurisdictions seem split on whether or not to restrict these programs to City owned/authorized property or to pursue easements with private property owners.

A graphic showing the areas selected for inclusion is attached as Exhibit B. Based upon the evaluation mentioned above, it was determined that lands either owned by the City or under

Easement Agreement are most appropriate for a program such as this. This eliminates both the need for acquiring additional easements with additional property owners and the subsequent liability concerns of landowners. Based upon the physical characteristics of the City's surrounding waters, several of the areas selected for inclusion have been widened, relative to the traditional "streambank approach", in order to provide a larger area of impact.

Fiscal Impact:

As is the case with the Adopt-A-Street program, the City will provide participants with trash bags for debris collection, as well as safety vests to return when collection is complete. The City will recognize participants in the program via the *City Focus*, the stormwater website and other methods generated in-house, thus having little fiscal impact.

Policy Implications:

In addition to satisfying one of the provisions of the CSO, the Adopt-A-Waterway program will facilitate the clean-up of 78 acres of land area (with groups conducting clean-up on their adopted area twice per year). Participants will document the number of bags collected during each clean-up activity in order that the amount of debris collected can be reported annually to DCR. As well, it encourages a stronger commitment to environmental stewardship and civic responsibility. It creates an additional opportunity for cooperative interaction between residents and the City.



CITY OF COLONIAL HEIGHTS Adopt-A-Waterway Program Overview



PROGRAM OBJECTIVE:

The objective of the Adopt-A-Waterway Program is to maintain the health, cleanliness and beauty of city streams and waterways.

PROGRAM DESIGN:

The Adopt-A-Waterway Program is an invitation to organizations and individuals to help take on the responsibility of maintaining the natural health and beauty of city waterways. Citizens, families, and organizations may volunteer to clean segments of selected streams and waterways on at least a semi-annual basis as an expression of environmental and municipal pride. Participants will be collecting bags of litter\debris.

PARTICIPANT CONDITIONS/EXPECTATIONS:

Participants will be expected to:

1. Contact the City to register the desired waterway(s). (This will allow the City to maintain records on the adopted waterways, to notify any affected personnel or groups, and to properly recognize the participant's efforts.)
2. Adopt a selected section of a waterway for a minimum of a two-year period (4 cleanups). Stream and waterway designations shall be made exclusively by the City and cleanup activities on any unauthorized segments are in no way endorsed by the City.
3. Notify the City at least forty-eight (48) hours prior to beginning any cleanup activities.
4. Collect litter twice per year so that the appearance of the area(s) is consistently clean.
5. Let the City know if you need to end the agreement so that others are free to adopt the waterway(s).

NOTE FOR PARTICIPANTS:

In order to maintain safety during cleanup procedure, the following conditions apply:

A. Persons under the age of eighteen (18) are not allowed to participate in the program without meeting the following criteria:

1. Have written authorization to participate from a parent\guardian; and
2. At least one (1) adult supervisor must accompany authorized participants under the age of eighteen when said participants number six (6) or fewer. If participants number more than six (6), an additional adult supervisor must be present. Thus for every six (6) participants under the age of eighteen, at least (1) adult supervisor must be present at all times during cleanup.

Other conditions include:

- B. Avoid any steep slopes and/or unsecured footings, avoid obstacles that might cause you to get too close to unsafe slopes, and avoid areas near swift water.
- C. Wear light-colored clothing for easy visibility.
- D. Wear gloves during any cleanup activities.
- E. Limit cleanup activities to the assigned area(s) only. **Unauthorized segments are not part of the Adopt-A-Waterway program.**
- F. Do not pickup materials that appear to be hazardous. Instead, contact the City of Colonial Heights Police Department regarding any materials that appear to be hazardous or an imminent danger to anyone.
- G. Work only in daylight and during fair weather conditions.
- H. Stay alert for snakes and noxious weeds and take measures to avoid them. Wear boots of at least ankle-height and long pants to avoid contact with either of the above.
- I. Do not overexert yourself; take breaks and drink plenty of water and hydrating fluids.

CITY RESPONSIBILITIES:

The City will:

- 1. Inform property owners, where applicable, of the date of sponsor(s) cleanup activity along designated waterway.
- 2. Provide sponsor(s) with safety vest(s) and collection bags.
- 3. Recognize sponsor(s) efforts in annual publications and related media.
- 4. Provide sponsor(s) with a certificate of recognition at the end of each two year sponsor period.

I have read the Program Overview, I understand its provisions, and I agree to be bound by it:

Signature of Participant / Sponsor

Signature of Parent / Guardian

.....

APPLICATION TO ADOPT-A-WATERWAY

Participant / Sponsor Information:

Name of Participant / Sponsor: _____

Affiliation (if volunteering with an organization or group):

Mailing Address:

Contact Person Phone Number:

Email:

Agreements:

The sponsor(s) agree that being granted approval to cleanup a city stream/waterway means that the following policies will apply:

1. This application shall have been approved by City staff prior to sponsor(s) beginning any cleanup activities.
2. Sponsor(s) agree to indemnify and hold harmless the City of Colonial Heights and any representatives thereof from ALL liability, judgment, costs, expenses and claims for damages or alleged damages of any nature whatsoever to any person, property or third party arising out of the performance of any cleanup activity or litter removal. Sponsor(s) will not go beyond assigned area or onto private property, and agree to heed the criteria listed under the **NOTE FOR PARTICIPANTS** as described on the program overview (preceding).
3. Signs and or any other equipment affixed to any land(s) shall not be removed, altered or damaged.
4. The sponsor(s) agrees to give the City forty-eight (48) hours notice of intention to begin cleanup. Notification shall be made to the City at the following:

City of Colonial Heights Department of Public Works, Engineering Division 201 James Avenue P.O. Box 3401 Colonial Heights, VA 23834 (804) 520-9334
--

5. The sponsor(s) acknowledges that all participants involved in this project are volunteers directed by and at the sponsor(s) discretion, and that the sponsor(s) accept full responsibility for any injuries or damages sustained by or caused by such participants. The sponsor(s) acknowledges that it or its

volunteers are solely responsible for their personal safety and are in no way considered to be employees of, or the responsibility of, the City of Colonial Heights.

6. The sponsor(s) agree that the City of Colonial Heights reserves the right to revise any of these criteria when deemed necessary and further reserves the right to revoke approval or deny participation when deemed appropriate.

Please check:

By signing below, I hereby acknowledge that I have read and fully understand the foregoing Program Overview and Application, and hereby release the City of Colonial Heights, its officers and its employees from any liability or damages relating to or arising from my participation in the Adopt-A-Waterway Program. I further agree not to file any lawsuits, claims, or other causes of action, whether legal, equitable, administrative or other type, against the City of Colonial Heights, its officers and its employees, based on any incidents relating in any way to my participation in the Adopt-A-Waterway Program.

I am at least eighteen years of age.

I am under the age of eighteen and have provided the City of Colonial Heights with the appropriate parent/guardian authorization.

Participant Name:

Participant Signature:

Participant D.O.B.:

____ - ____ - ____

Date: _____

Parent/Guardian Name (if applicable):

Parent/Guardian Signature for Minor (if applicable):

Date: _____

Authorized City Representative: _____

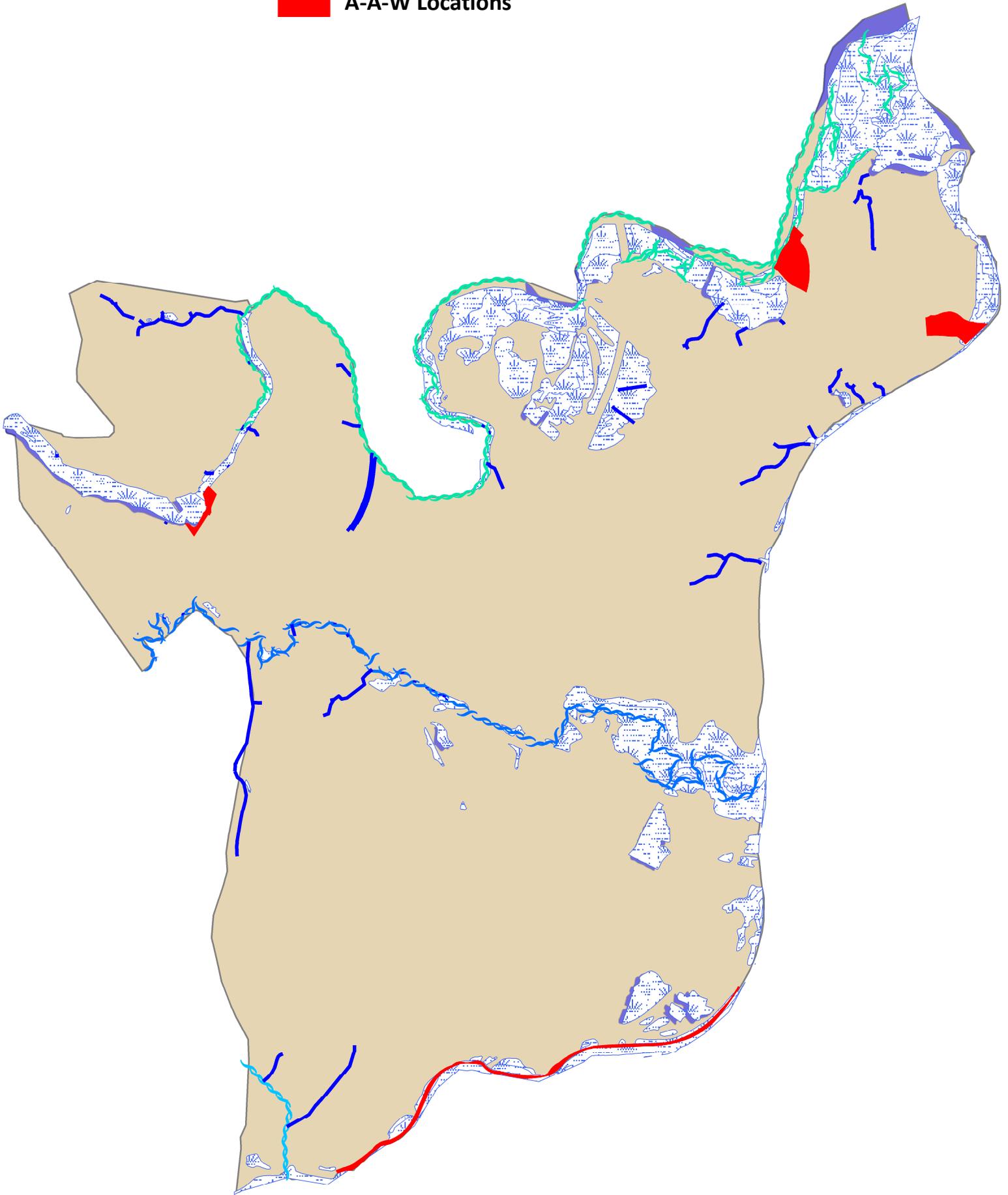
Date: _____

Notary Public

My commission expires:

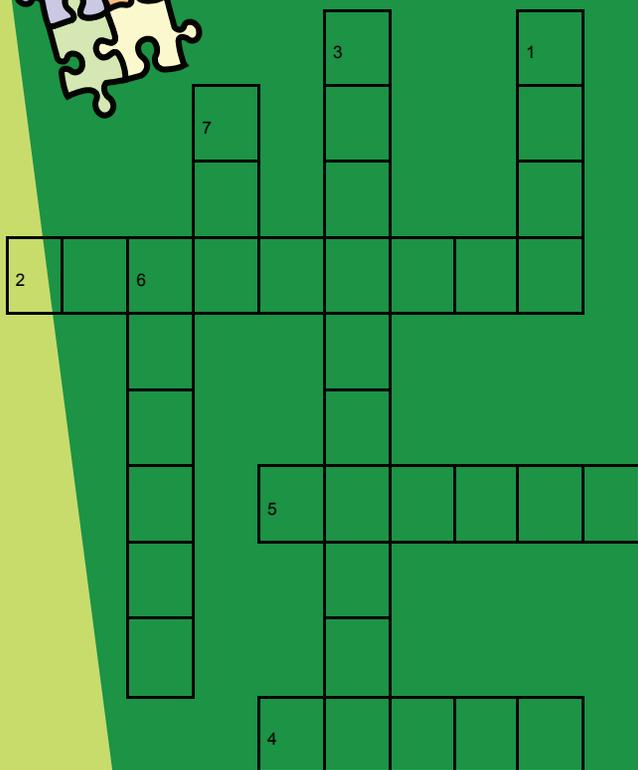
Proposed Adopt-A-Waterway Locations (City parcels adjacent to waterbodies)

 A-A-W Locations



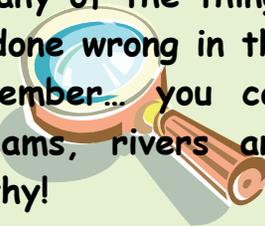


Stormwater crossword!



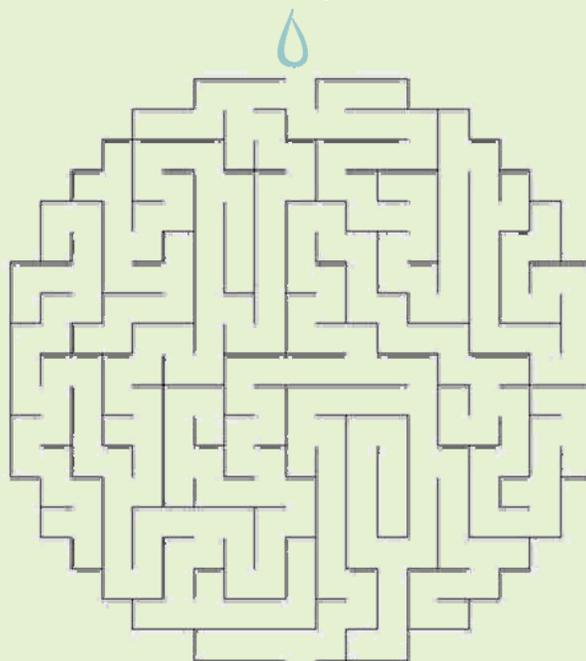
1. Stormwater is created by _____.
2. _____ makes streams, rivers and lakes unhealthy for fish and wildlife.
3. _____ is good for grass but can really hurt water quality.
4. _____ goes down the storm sewer and makes our waters ugly to look at and unhealthy.
5. _____ carry many pollutants to the Bay and the ocean.
6. _____ can clog a storm drain if raked into them.
7. Never pour _____ down the storm drain.

Be a stormwater detective! Look around your home and your yard to see if you can spot any of the things that you saw being done wrong in the picture inside. Remember... you can help keep our streams, rivers and lakes clean and healthy!



Follow the rain drop...

Help guide the rain drop through the maze and into the storm drain. Remember to make sure that it gets there without picking up any trash, oil or other pollutants.



END

What happens when it rains?

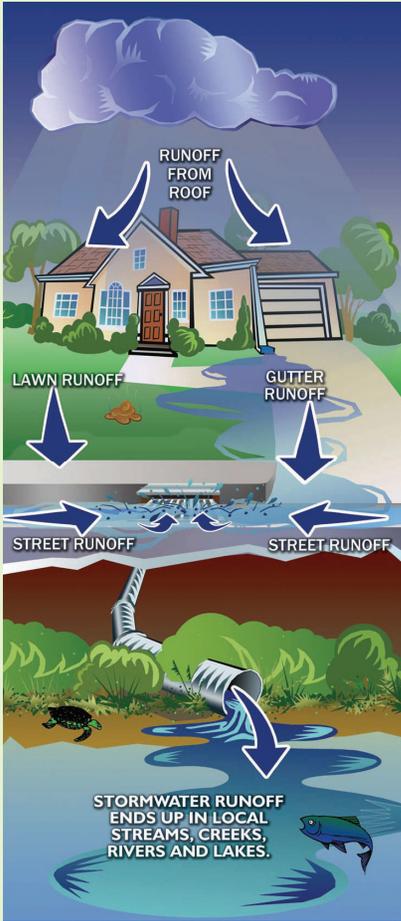


When it rains the rain drops fall on the trees, on our houses, and on our cars and trucks. Once it runs and drips off of these it lands on the streets and on our lawns. After that it either sinks into the ground or runs down the street into the storm drains. But what happens to it then...



Where the rain goes

Once the rain has 'run off' of all the things above ground it is called runoff. Once this runoff has made it's way to the storm drain it doesn't just disappear. The storm drain is just the top, or inlet, to the storm sewer system. The storm sewer system is a long series of pipes under the ground that catches all the runoff. The storm sewer carries the runoff to lakes, streams and rivers.



Runoff is not clean water, though. As rains run off of the ground and street they pick up all the dirt, oils, grease, trash and pollutants that are on the ground and the streets. All of this is washed into the storm sewer in just the same way a ball or a small toy is moved around when you spray it with a garden hose.

So any pollutant that ends up on the ground ends up in the waters. Pollutants make it hard for fish and other species to live. These pollutants can make us sick, too, and make the waters too dirty for us to swim and fish in.

The best way to keep our waters clean is to keep anything that might hurt the water off of the ground and away from storm drains, so it can't be washed into them. Oil should never be poured into a storm drain or allowed to leak from a car. Trash should never be thrown into the street or the yard where runoff could wash it into the drain. Water from hoses or spigots should not be left where they can wash pollutants into the street or drain. Fertilizers and chemicals used for plants and keeping grass green should not be left where they can spill onto the lawn.

Something isn't right here!...



Can you find all 5 things that are not storm water friendly in this picture? Remember that everything that might end up in the streams, lakes or rivers will end up polluting it. Circle all the things that are being done wrong.

Storm water word challenge

P	M	A	E	R	T	S	B	W	R
X	O	I	B	L	A	K	E	A	U
W	V	L	I	D	J	O	Q	T	N
R	X	B	L	I	R	S	D	E	O
I	N	T	T	U	G	A	K	R	F
V	F	O	Q	Y	T	N	I	C	F
E	N	I	A	R	A	I	M	N	E
R	T	R	Z	B	E	P	O	Y	N
N	H	S	I	F	K	M	A	N	T

Find and circle the stormwater words:

stream lake
fish runoff
water drain
pollution river
bank rain





Be A Stream Protector

Do the things shown in the picture above with stars and never do those shown with a badge and you can help color your stream clean!



You can help...

- never put anything down the storm drain
- help build a rain barrel
- make a compost bin for raked leaves
- make sure car oils don't run into the storm drain
- pick up after pets
- plant flowers that use less water
- use less fertilizer
- turn downspouts onto grassy areas



Percolation Nation?

When water moves through the holes (called pores) in a material or substance it is called percolation. If you pour water onto a sponge, for example, the water will move through the sponge's pores to run out of the other side. Soil, like sponges, is made up of materials that have a lot of pores, so soil is called a porous material.



Since soil is a porous material, the ground often acts like a sponge for rain. As the rain runs across the ground and settles on flat and low spots, it runs through the ground's surface and through the soil below. The more pores the material has the more porous it is. Circle which of the surfaces below allow rain to percolate through them.



- | | | |
|--------|----------------|-----------|
| Soil | A Garden | A Rooftop |
| Sand | Sidewalk | Mulch |
| Grass | Gravel | |
| A Lawn | A Paved Street | |

All About the Chesapeake Bay

The Chesapeake Bay is the largest estuary in the United States. An estuary is a body of water where fresh water from streams and rivers mixes with salt water from the ocean. Estuaries are among the most productive environments on earth, providing a variety of habitats that support many animal and plant communities. A habitat is an area where a particular animal or plant species lives. It is the natural environment in which an organism lives, or the environment that surrounds an animal or plant species. The Chesapeake Bay supports many habitats. Marshes, forests, aquatic reefs, wetlands and forests are all types of habitats that are supported by the Bay.

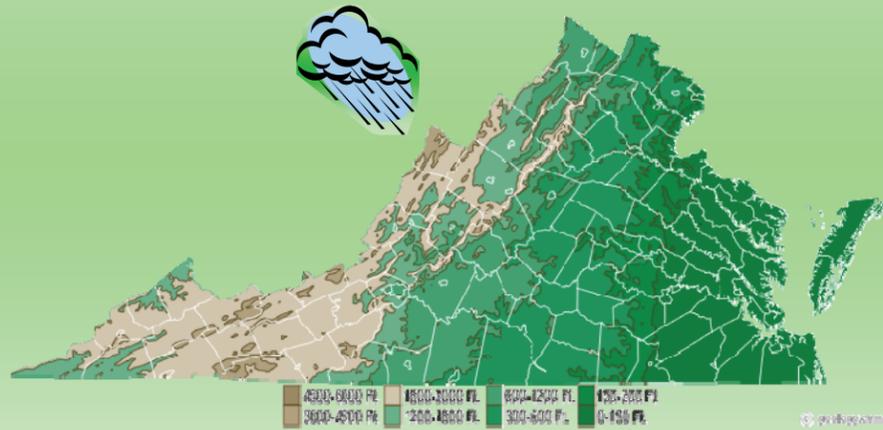
Fill in the blanks below beside each species with the correct letter for each habitat the Chesapeake Bay supports.

- | | |
|-------------------------|----------------------|
| ___ Catfish | A = Forests |
| ___ Oyster | B = Wetlands |
| ___ Sandbar Shark | C = Streams & Rivers |
| ___ Bald Eagle | D = Open Waters |
| ___ American Black Duck | |
| ___ Eastern Screech Owl | |
| ___ Jellyfish | |
| ___ Bobcat | |
| ___ Red Fox | |
| ___ Blue Crab | |

Are the Aliens Guiding Our Water?



It isn't being guided by any aliens, but it is being guided by outer space, in a way. Gravity is the force that causes all water to run downhill. Gravity is a natural occurrence that is responsible for keeping the planets in their orbit and keeping us on the ground. In space, the astronauts and all their things float around because there is no gravity.



This map of Virginia's elevations shows how, even when it rains in the mountains in the western part of the state, the rainwater still makes its way to the Chesapeake Bay in the eastern part of the state.

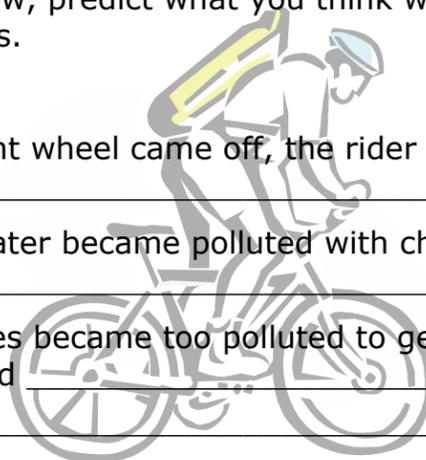
Everybody Rides the Eco - Cycle!



All animals, plants and people are part of an ecosystem. In an ecosystem all living organisms interact with every other living organism in their local environment. In other words, an ecosystem functions like a bicycle, where all the parts work together and any particular part will not work properly without the other parts that it relies on. A wheel, for example, will not spin without the pedals to turn it, and the pedals can't turn the wheel if the chain is not attached properly. So just like a bicycle, an ecosystem needs all its parts in good condition to be healthy and function properly.

In the spaces below, predict what you think would happen in the following cases.

- If a bicycle's front wheel came off, the rider would _____.
- If an animal's water became polluted with chemicals, the animal would _____.
- If rivers and lakes became too polluted to get drinking water from, people would _____.



What is a Watershed?

A watershed is any area of land that drains to a particular body of water. Colonial Heights is in the Chesapeake Bay watershed, which means that all of the rain that falls on Colonial Heights ends up in the Chesapeake Bay. The Chesapeake Bay watershed stretches across more than 64,000 square miles, covers parts of six states, and covers the entire area of Washington, D.C.

More than 100,000 streams and rivers run through the Chesapeake watershed. These streams and rivers that eventually flow into the Bay are called tributaries. Everyone in the Chesapeake Bay watershed lives within a few minutes of one of these streams and rivers, which act like pipelines that carry rainwater from our communities to the Bay.



Check the states that are not in the Chesapeake Bay watershed:

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> New York | <input type="checkbox"/> Florida |
| <input type="checkbox"/> Kentucky | <input type="checkbox"/> Delaware |
| <input type="checkbox"/> Maryland | <input type="checkbox"/> Pennsylvania |
| <input type="checkbox"/> New Jersey | <input type="checkbox"/> West Virginia |

What Happened In Our Water?

Something is happening in our waters. When it rains, the water that runs off of our houses, cars, streets and lawns is called stormwater runoff. Pollutants from this stormwater runoff are collecting in our streams and rivers and polluting them. As stormwater runs across surfaces, it picks up dirt, mud, oil, chemicals, litter and fertilizers and carries them into our rivers and streams. These pollutants affect the health of the water's habitats and make it difficult for animals and plants to live. In fact, pollutants in stormwater runoff are the leading cause of water pollution. How do these pollutants get into stormwater? Many of the actions people do on a regular basis allow many of the pollutants to collect in the runoff. Match the causes to the affects below to help find some clues about how runoff gets polluted.

- Litter _____.
- Using too much _____.
- Leaving or pouring _____.

1. fertilizer results in excess chemicals ending up in streams and rivers.
2. always ends up as pollutants in rivers and streams.
3. oil or chemicals onto the ground or into the storm drain allows it to be carried by stormwater runoff to local water bodies.



Stormwater 4 Kids



COLOR YOUR WATER CLEAN



Coloring Book



City of Colonial Heights

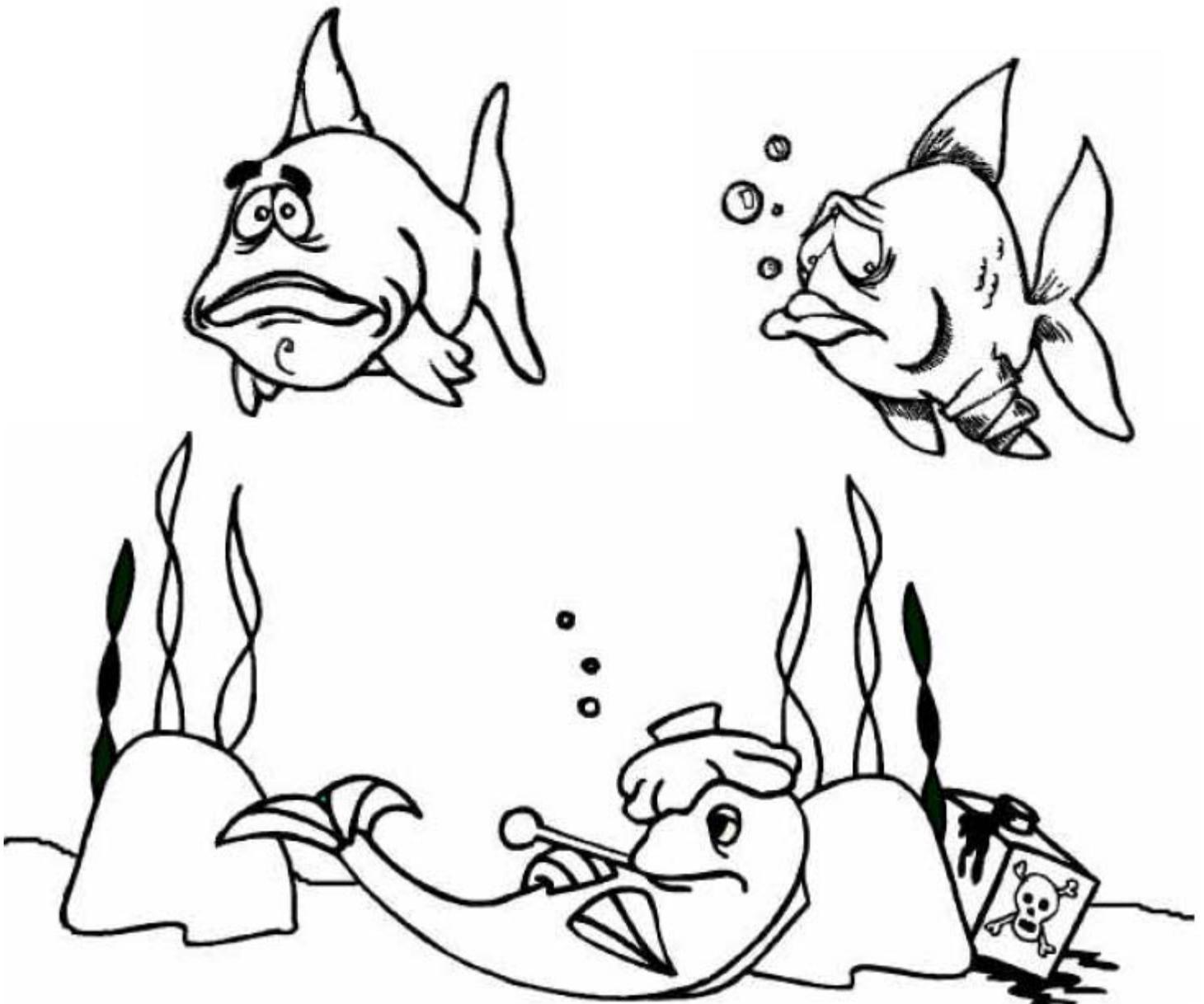
What's Wrong
with the
water?

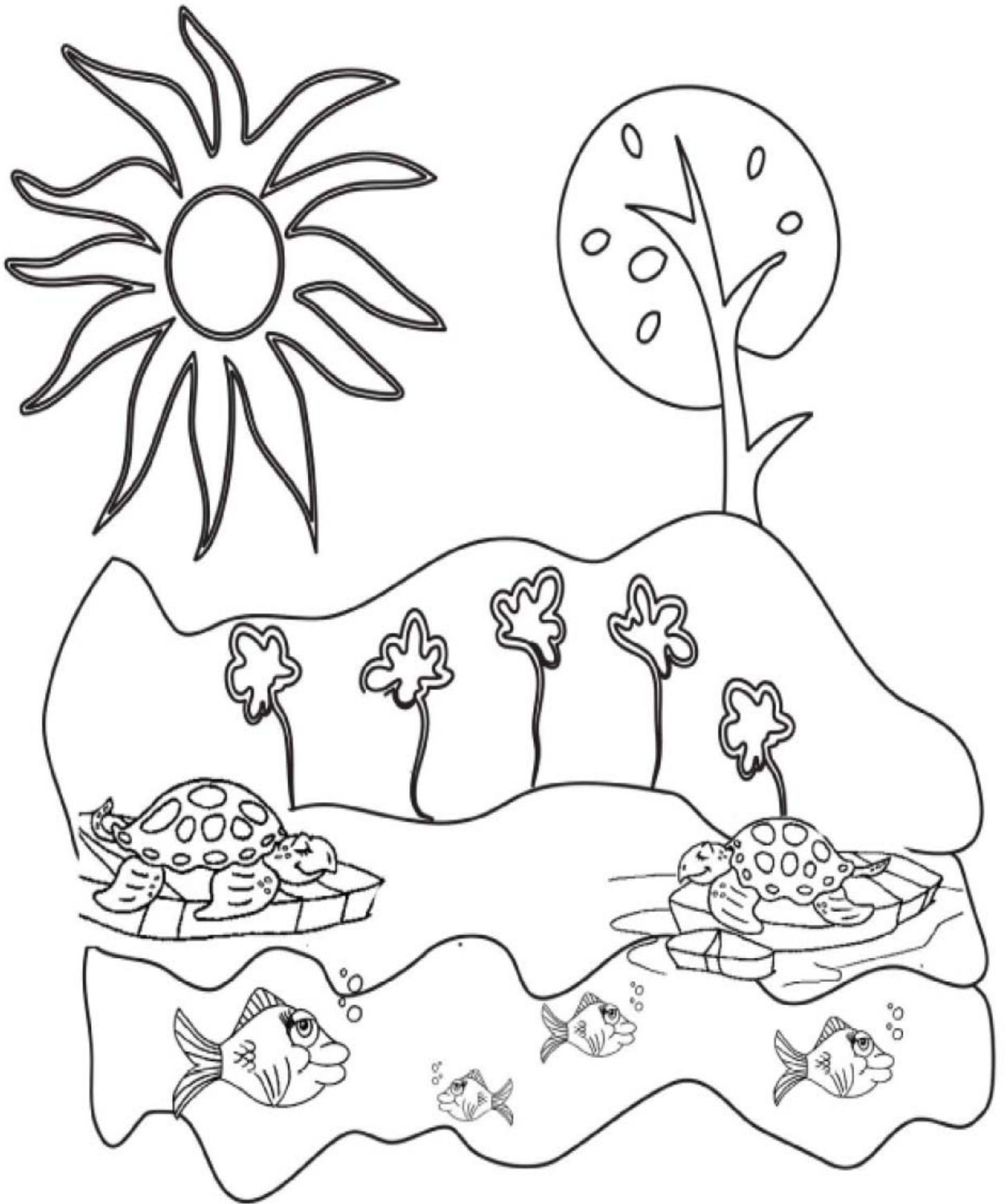


Why are the animals sick or moving out? The water may be polluted. One cause of water pollution is **STORM WATER POLLUTION**. This happens because water becomes contaminated with stuff like trash, dirt, oil, and sewage chemicals.

How does the water become polluted?

We cause pollution. When it rains, the water that flows over the streets and in drainage ditches picks up pollutants such as trash, dirt, pet waster, chemicals and more and carries them, untreated, into our rivers, streams and lakes.





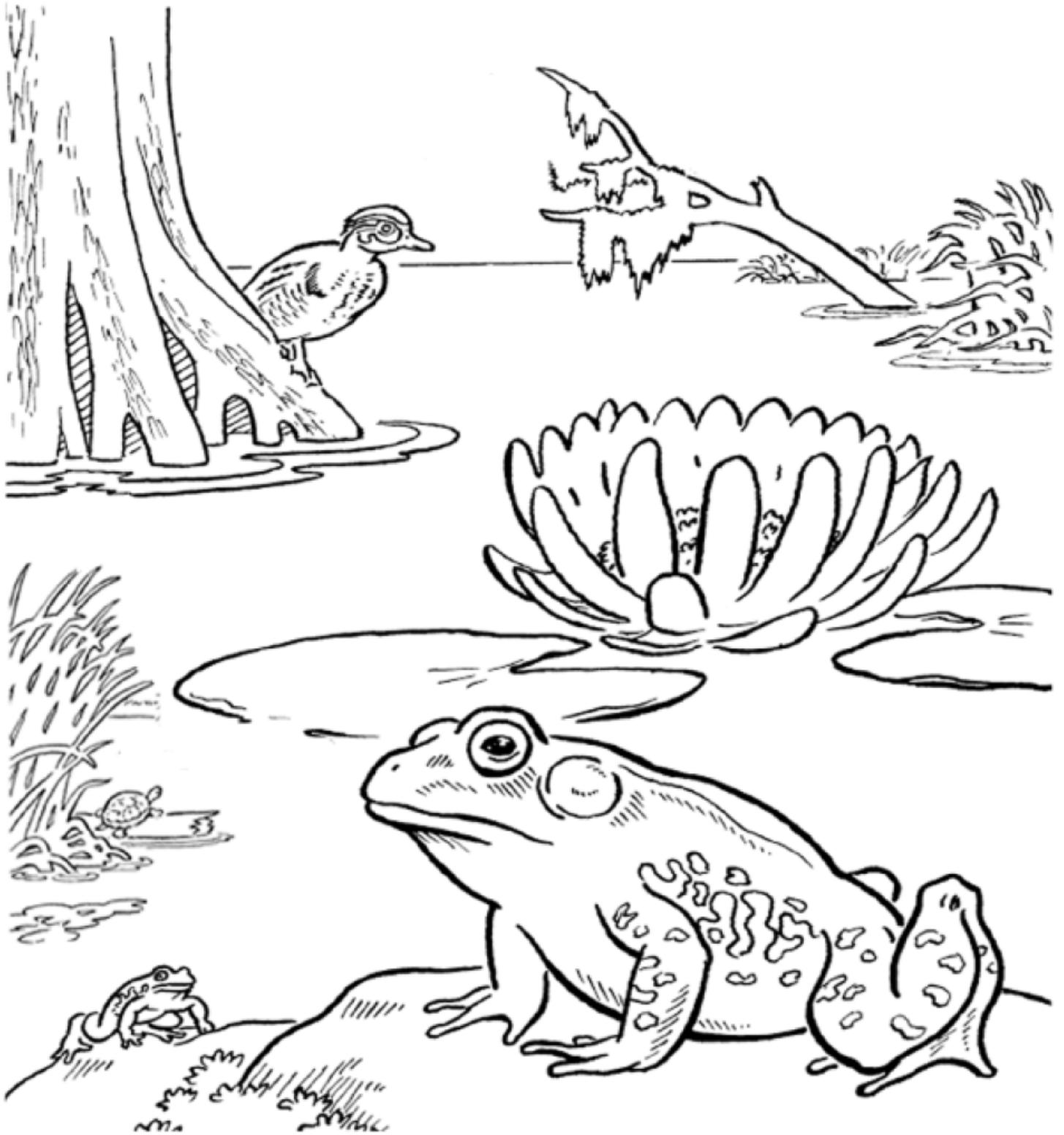
Give our water a hand! Do not dump trash into our rivers or canals. Let our plants, fish and turtles have a clean, healthy place to live.



What you drop means a lot! Help protect clean water by keeping litter and pollution out of storm drains.

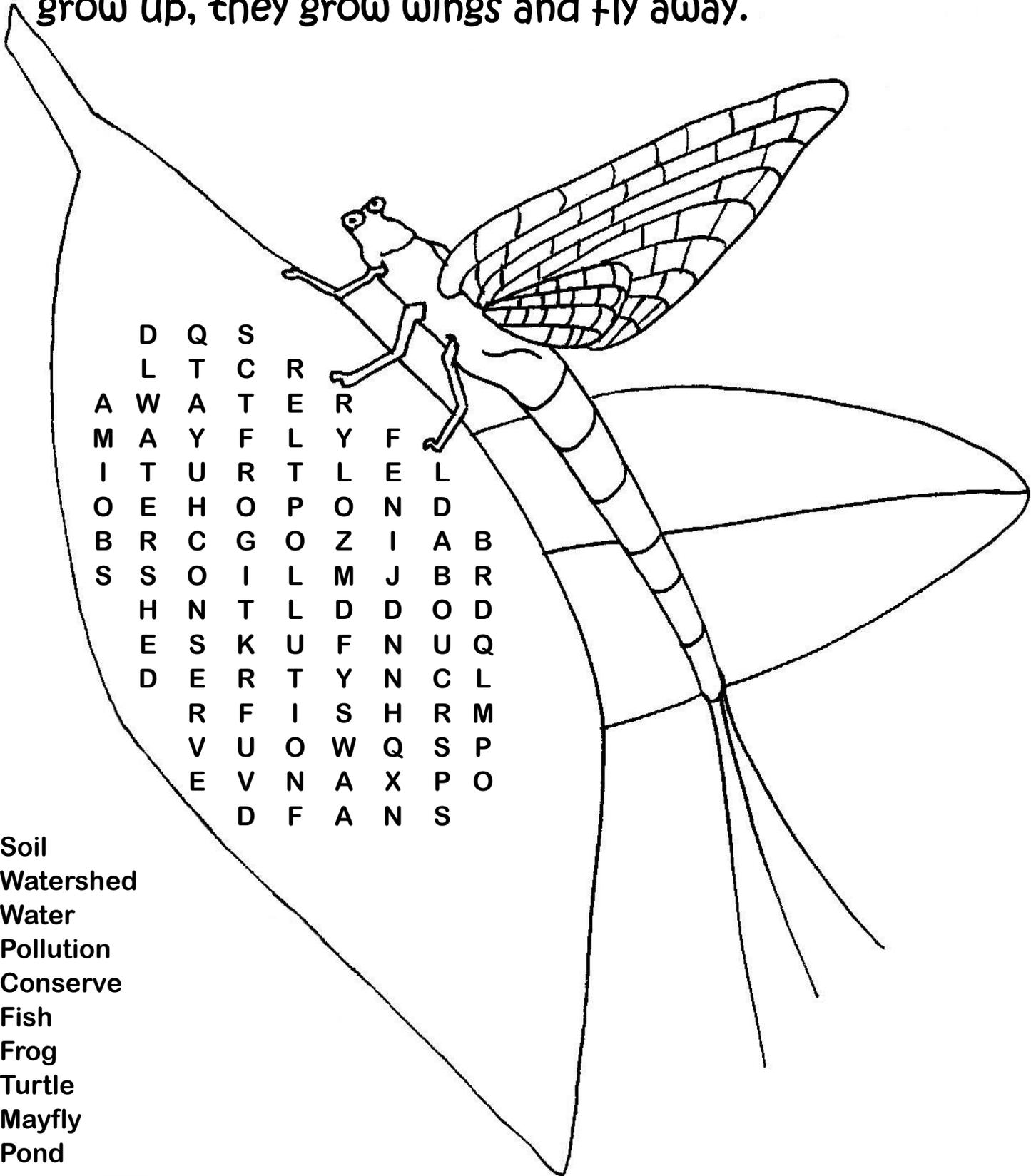


Use care about what is poured on the ground. Things that should not be dumped onto the ground include: leftover paint, paint thinner, motor oil and all kinds of substances that are used to kill weeds and bugs. (small amounts of pesticides are not considered a major problem.)



All life forms depend on clean water. Wetlands are essential, natural, living entities that must be protected for the common good—the good of the people and the good of the huge variety of animals, fish and plants that survive in these unique habitats.

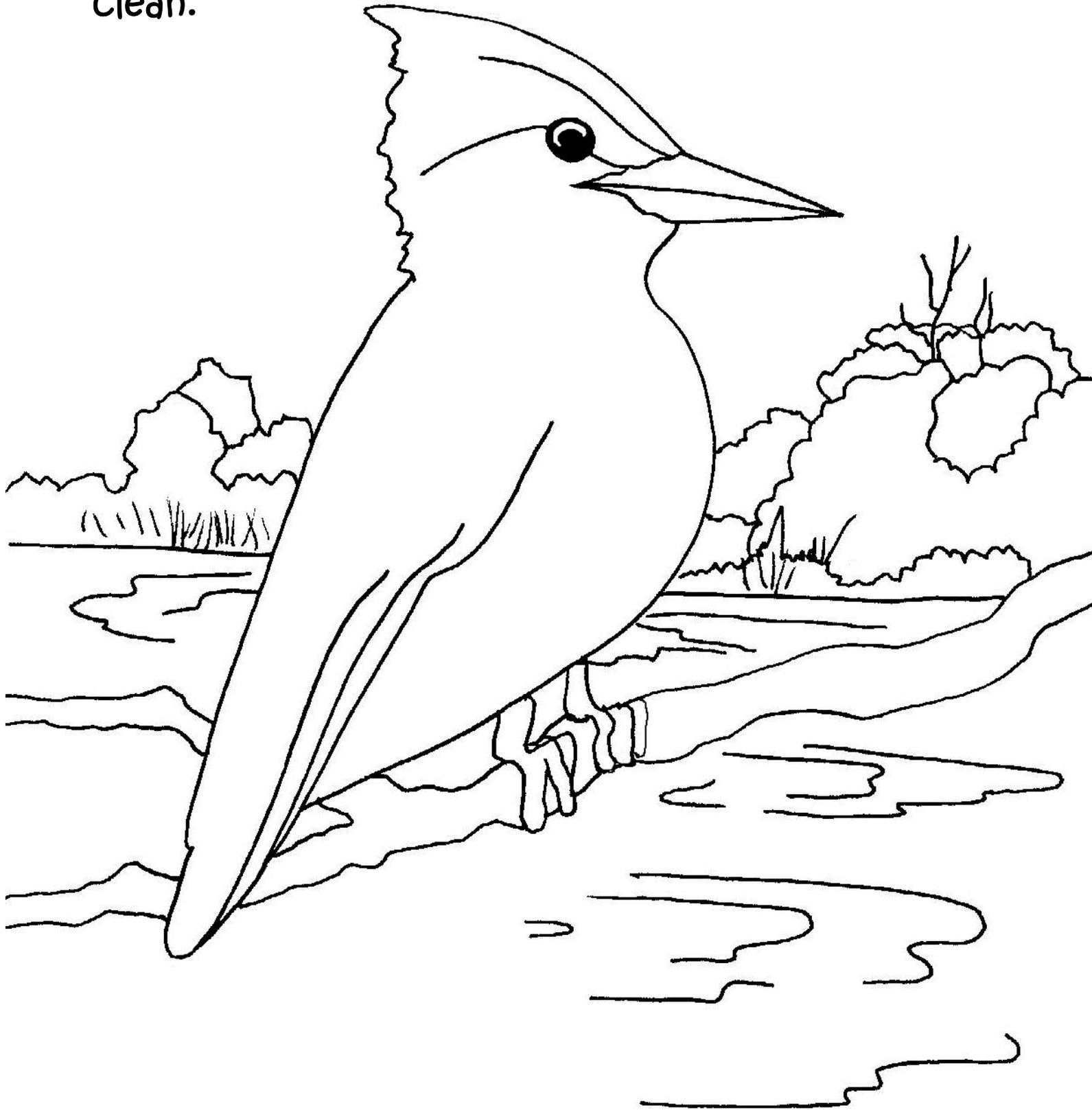
My name is Molly the Mayfly. Mayflies live in the water when they are babies. This is why it is so important to keep the water clean. When they grow up, they grow wings and fly away.



	D	Q	S	R	R	F	L	
A	L	T	C	E	Y	E	D	B
M	W	A	T	L	L	N	A	R
I	A	Y	F	T	O	I	B	D
O	T	U	R	P	Z	J	O	Q
B	E	H	O	O	M	D	U	L
S	R	C	G	L	D	N	C	M
	S	O	I	L	F	N	R	P
	H	N	T	U	Y	H	S	O
	E	S	K	T	S	Q	P	
	D	E	R	I	W	X		
		R	F	O	A	N		
		V	U	N				
		E	V	F				

- Soil
- Watershed
- Water
- Pollution
- Conserve
- Fish
- Frog
- Turtle
- Mayfly
- Pond

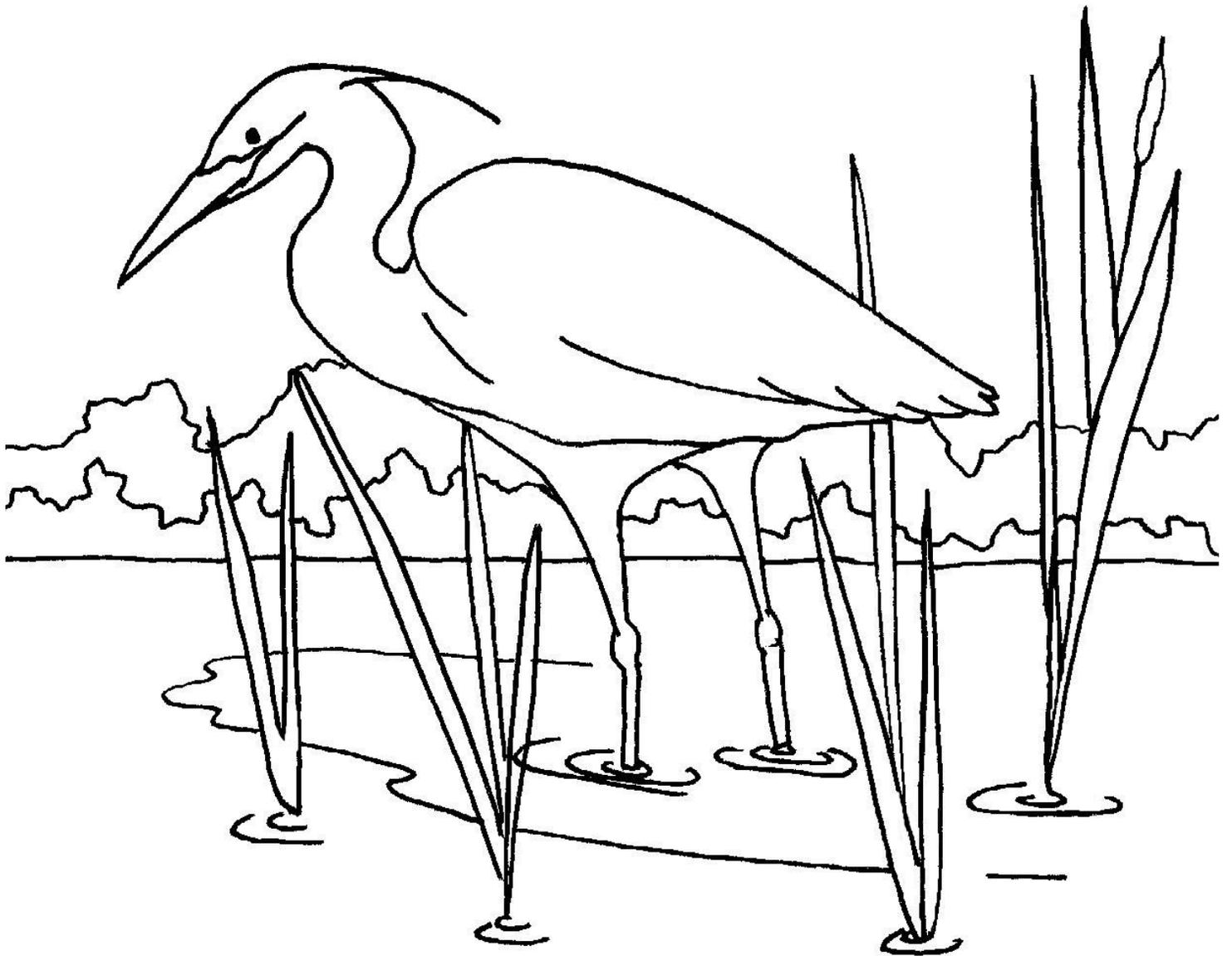
Hi! I am Karen the Kingfisher. I only eat fish. Fish need clean water to live so please keep their water clean.



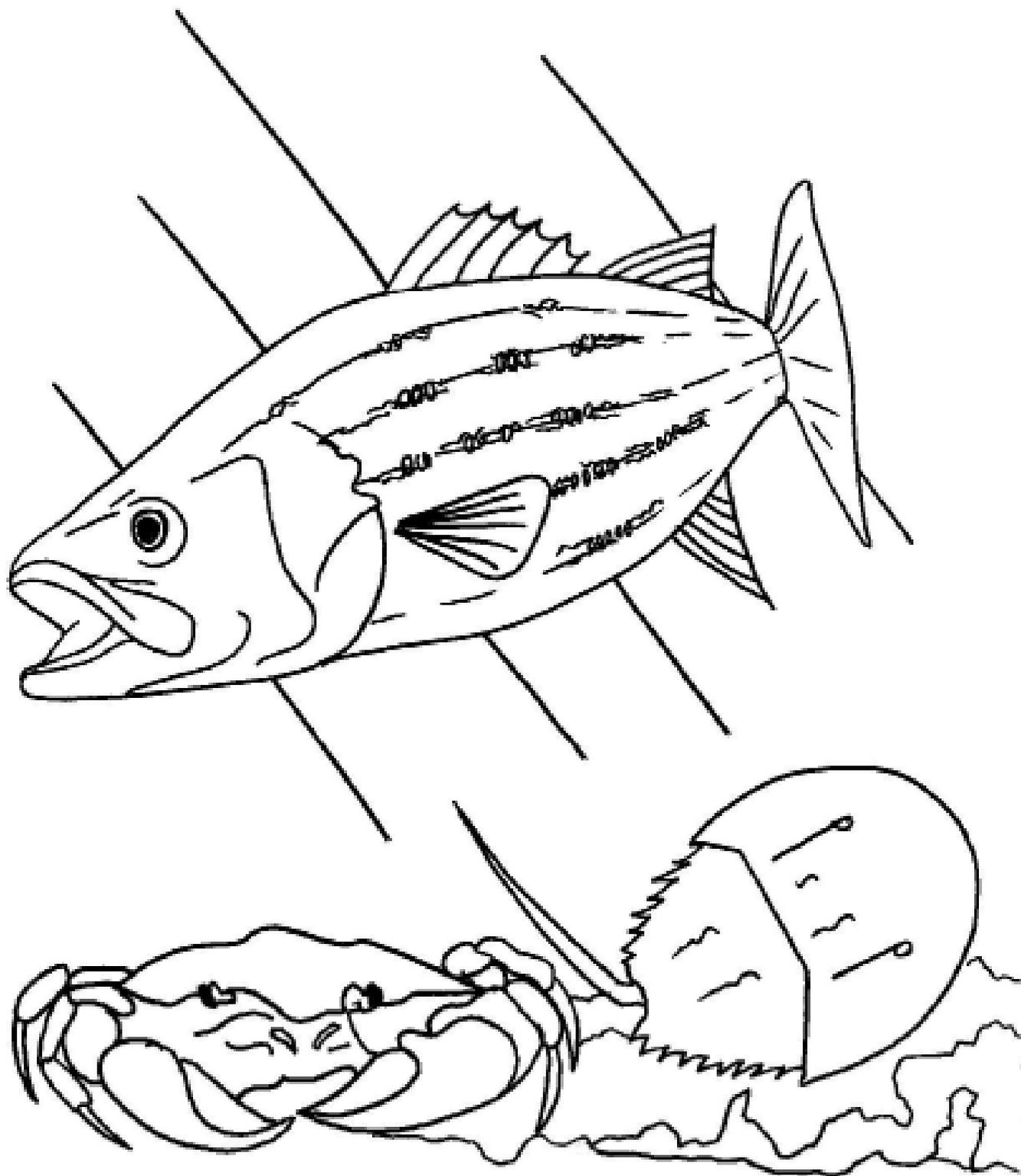
I am Frank the Frog. I need clean water to drink.
I don't drink through my mouth. I drink water
through my skin.



I am Henry the heron. I need clean water so that I can go fishing.



We all live in your waters and need clean water to stay healthy.



I am Ben. I need clean water to drink!



*City of Colonial Heights, VA
Tuesday, September 30, 2014*

Chapter 245. STORMWATER MANAGEMENT

[HISTORY: Adopted by the City Council of the City of Colonial Heights 3-10-2009 by Ord. No. 09-1; amended in its entirety 12-14-2010 by Ord. No. 10-28. Subsequent amendments noted where applicable.]

GENERAL REFERENCES

Drainage — See Ch. **121**.

Erosion and sediment control — See Ch. **241**.

Subdivision of land — See Ch. **250**.

Zoning — See Ch. **286**.

Article I. General Provisions

§ 245-1. Purpose.

The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of the City of Colonial Heights through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this ordinance are:

- A. To regulate non-stormwater discharges to the municipal separate storm sewer system (MS4);
- B. To prohibit Illicit Connections and Illegal Discharges to the municipal separate storm sewer system; and
- C. To establish legal authority to carry out all inspection, surveillance, and monitoring procedures necessary to ensure compliance with this ordinance.

§ 245-2. Definitions.

For the purposes of this ordinance, the following shall mean:

AUTHORIZED ENFORCEMENT AGENCY

The City of Colonial Heights Department of Public Works.

BEST MANAGEMENT PRACTICES (BMPs)

Schedules of activities, prohibitions of practices, general good house keeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials' storage.

CLEAN WATER ACT

The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

CONSTRUCTION ACTIVITY

Construction projects resulting in land disturbance of one acre or more. Such activities include, but are not limited to, clearing and grubbing, grading, excavating and demolition.

HAZARDOUS MATERIALS

Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

ILLEGAL DISCHARGE

Any direct or indirect non-storm water discharge to the storm drain system, except as exempted in § 245-6 of this ordinance.

ILLICIT CONNECTIONS

An illicit connection is defined as either of the following:

Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system, including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether such drain or connection had been previously allowed, permitted, or approved by the authorized enforcement agency; or,

Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by the authorized enforcement agency.

INDUSTRIAL ACTIVITY

Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26(b)

(14).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER DISCHARGE PERMIT

Means a permit issued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

NON-STORM WATER DISCHARGE

Any discharge to the storm drain system that is not composed entirely of storm water.

PERSON

Means any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.

PREMISES

Any building, lot, parcel of land, or portion of land whether improved or unimproved, including adjacent sidewalks and parking strips.

STORM DRAIN SYSTEM

Facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

STORM WATER

Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

STORMWATER POLLUTION PREVENTION PLAN

A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and receiving waters to the maximum extent practicable.

WASTEWATER

Means any water or other liquid, other than uncontaminated storm water, discharged from a facility.

§ 245-3. Applicability.

This ordinance shall apply to all water entering the storm drain system generated on any developed or undeveloped lands unless explicitly exempted by the Department of Public Works.

§ 245-4. Responsibility for administration.

The Department of Public Works shall administer, implement, and enforce the provisions of this ordinance. Any powers granted or duties imposed upon the Department may be delegated in writing by the Director of the Department of Public Works to persons or entities acting in the beneficial interest of or in the employ of the City.

§ 245-5. Severability.

The provisions of this Chapter are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Chapter or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Chapter.

§ 245-6. Discharge prohibitions.

A. Prohibition of illegal discharges.

No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials that cause or contribute to a violation of applicable water quality standards, other than storm water.

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

- (1) The following discharges are exempt from discharge prohibitions established by this Chapter: water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wetland flows, swimming pools (if dechlorinated - less than one PPM chlorine), fire fighting activities, and any other water source meeting applicable water quality standards.
- (2) Discharges specified in writing by the authorized enforcement agency as being necessary to protect public health and safety.
- (3) Dye testing is an allowable discharge, but requires a verbal notification to the Department of Public Works prior to the time of the test.
- (4) The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the

permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

B. Prohibition of Illicit Connections.

- (1) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
- (2) 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) A person is considered to be in violation of this ordinance if the person connects a drain or conveyance to the Storm Drain System, or allows such a connection to continue.

§ 245-7. Suspension of storm drain system access.

A. Suspension of Illegal Discharges in Emergency Situations.

The Department of Public Works may, without prior notice, suspend discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the Storm Drain System or waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the Department of Public Works may take such steps as deemed necessary to prevent or minimize damage to the Storm Drain System or waters of the United States, or to minimize danger to persons.

B. Suspension due to the Detection of Illegal Discharge.

Any person discharging to the Storm Drain System in violation of this Chapter may have its access terminated if such termination would abate or reduce an illegal discharge. The authorized enforcement agency will notify a violator of the proposed termination of its access to the Storm Drain System. The violator may petition the Department of Public Works for a reconsideration and hearing.

A person commits an offense if the person reinstates access to premises terminated pursuant to this Section, without the prior approval of the Department of Public Works.

§ 245-8. Industrial or construction activity discharges.

Any person subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with such permit may be required in a form acceptable to the Department of Public Works prior to allowing discharges to the Storm Drain System.

§ 245-9. Monitoring of discharges.

A. Applicability.

This section applies to all facilities that have storm water discharges associated with industrial activity, including construction activity.

B. Access to facilities.

- (1) The Department of Public Works shall be permitted to enter and inspect facilities subject to regulation under this Chapter as often as may be necessary to determine compliance with this Chapter. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the Department of Public Works.
- (2) Facility operators shall allow the Department of Public Works ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.
- (3) The Department of Public Works shall have the right to set up on any permitted facility such devices as are necessary in the Department's opinion to conduct monitoring and/or sampling of the facility's stormwater discharge.
- (4) The Department of Public Works has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.
- (5) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the Department of Public Works and shall not be replaced. The costs of clearing such access shall be borne by the operator.
- (6) Unreasonable delays in allowing the Department of Public Works access to a permitted facility is a violation of a stormwater discharge permit and of this Chapter. A person who is the operator of a facility with a NPDES permit to discharge storm water associated with industrial activity commits an offense if the person denies the Department reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this Chapter.
- (7) If a representative of the Department of Public Works has been refused access to any part of the premises from which storm water is discharged, and he is able to

demonstrate probable cause to believe that there may be a violation of this Chapter, or that there is a need to inspect or sample as part of a routine inspection and sampling program designed to verify compliance with this Chapter or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the Department may seek issuance of a search warrant from any court of competent jurisdiction.

§ 245-10. Requirement to prevent, control, and reduce storm water pollutants by the use of best management practices.

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

§ 245-11. Watercourse protection.

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

§ 245-12. 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 or may result in illegal discharges or pollutants discharging into storm water, the Storm Drain System, or water of the U.S., such person shall take all necessary steps to ensure the discovery, containment, and cleanup of the release. In the event of such a release of hazardous materials, the person shall

immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, the person shall notify the Department of Public Works in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Department of Public Works within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

§ 245-13. Enforcement.

Whenever the Department of Public Works finds that a person has violated a prohibition or failed to meet a requirement of this Chapter, the Department may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

- A. The performance of monitoring, analyses, and reporting;
- B. The elimination of illicit connections or illegal discharges;
- C. That violating discharges, practices, or operations shall cease and desist;
- D. The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;
- E. Payment of a fine to cover administrative and remediation costs; and
- F. The implementation of source control or treatment BMPs.

If abatement of a violation or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. The notice shall further advise that, should the violator fail to remediate or restore within the established deadline, representatives of the Department of Public Works or a designated contractor shall enter upon the subject property; and they are authorized to take all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow a representative of the Department or its designated contractor to enter upon the premises for the purposes set forth above. The expense of such abatement and restoration shall be charged to the violator.

§ 245-14. Appeal of notice of violation.

Any person receiving a notice of violation may appeal the determination of the Department of Public Works. The notice of appeal must be received within three days from the date of the

notice of violation. Hearing on the appeal before the City Manager or his designee shall take place within 12 days from the date of receipt of the notice of appeal. The City Manager or his designee shall affirm, modify, or reverse the decision of the Department of Public Works; and the decision of the City Manager or his designee shall be final.

§ 245-15. Enforcement measures after appeal.

If the City Manager's decision in an appeal is to affirm, wholly or in part, the decision of the Department of Public Works, then representatives of the Department or a designated contractor shall enter upon the subject private property and are authorized to take all measures necessary to abate the violation and/or restore the property. Provided however, the City Manager, at his sole discretion, may stay such entry and action by the Department or its contractor for a specified number of days if he determines that good cause exists for such a stay. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow a representative of the Department or its designated contractor to enter upon the premises for the purposes set forth above.

§ 245-16. Cost of abatement of the violation.

Within 14 days after abatement of the violation, the owner of the property shall be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within five days. If the amount due is not paid within a timely manner as determined by the decision of the City Manager or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment.

Any person violating any of the provisions of this article shall become liable to the City by reason of such violation. The liability shall be paid in not more than 12 equal payments. Interest at the rate of 3.5 percent per annum shall be assessed on the balance beginning on the 1st day following discovery of the violation.

§ 245-17. Compensatory action.

In lieu of enforcement proceedings, penalties, and remedies authorized by this Chapter, the Department of Public Works may impose upon a violator alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, and creek cleanup.

§ 245-18. Penalties.

- A. Any person violating any provision of this Chapter shall be subject to a civil penalty up to \$32,500 for each violation; which shall be determined at the trial court's discretion. Each day of violation of any requirement shall be a separate offense. The Department of Public

Works may issue a summons for collection of the civil penalty, and the case may be prosecuted in the circuit court. Any civil penalties assessed by the court as a result of a summons issued by the Department shall be paid into the City's treasury. Such civil penalties paid into the City treasury shall be used to minimize, prevent, manage, or mitigate pollution of the City's waters and abate environmental pollution in the City in such way as the court orders.

- B. With the consent of any person who has violated, or failed, neglected or refused to obey this Chapter, any condition of a permit, or a regulation or order of a State agency, the Department of Public Works may provide, in an order issued against such person, for the payment of civil charges in specific sums for violations, not exceeding the limit specified in subsection **A** of this section. Such civil charges shall be instead of any appropriate civil penalty that can be imposed under subsection **A**. Any civil charges collected shall be paid to the City treasury pursuant to subsection **A**.
- C. The Department of Public Works may apply to the circuit court to enjoin a violation or a threatened violation of this Chapter or any State statute or regulation without the necessity of showing that an adequate remedy at law does not exist.
- D. Any person who willfully and knowingly violates any provision of this Chapter is guilty of a Class I misdemeanor.

§ 245-19. Remedies not exclusive.

The remedies listed in this Chapter are not exclusive of any other remedies available under any applicable federal, state or local law; and it is within the discretion of the Department of Public Works to seek cumulative remedies.

Article II. Stormwater Management Utility

§ 245-20. Findings and determinations.

- A. The City of Colonial Heights has a system of manmade and natural components of a stormwater management infrastructure to both limit and manage the volume of stormwater to mitigate flood events and to minimize degradation of the City's waterways through stormwater quality management.
- B. Stormwater runoff is associated with all improved properties in the City, whether residential or nonresidential, and the individual property impacts of runoff are directly related to the amount of impervious surface on the property and land-disturbing activities on property.
- C. The elements of the stormwater management infrastructure provide benefit and service to properties within the City through direct protection of property, through mitigation of

flooding of critical components of the infrastructure, through protection of the City's natural environment and through protection of public health and safety.

- D. The costs of monitoring, operating, maintaining, and constructing the stormwater system required in the City, both to meet new regulations and to address identified flood event needs, should therefore be allocated, to the extent practicable, to all property owners based on their runoff contribution to the stormwater management system.

§ 245-21. Definitions.

The following words and terms used in this article shall have the following meanings:

AGRICULTURAL PROPERTY

Land used for the tilling, planting or harvesting of agricultural, horticultural or forest crops or land used for raising livestock.

DEVELOPED MULTI-FAMILY RESIDENTIAL PROPERTY

Developed property containing more than one residence or dwelling units, and accessory uses related to but subordinate to the purpose of providing permanent dwelling facilities. Such property shall include duplexes, triplexes, quadruplexes, townhouses apartments and condominiums.

DEVELOPED NONRESIDENTIAL PROPERTY -

Developed property which does not serve a primary purpose of providing permanent dwelling units. Such property shall include, but not be limited to, commercial properties, industrial properties, parking lots, recreational and cultural facilities, hotels, offices and churches.

DEVELOPED PROPERTY

Real property which has been altered from its "natural" state by the addition of any improvements such as buildings, structures, or other impervious surfaces. For new construction, property shall be considered developed pursuant to this subsection upon certification of the final building permit inspection.

DEVELOPED SINGLE-FAMILY RESIDENTIAL PROPERTY

A developed lot or parcel containing one residence or dwelling unit, and accessory uses related to but subordinate to the purpose of providing permanent dwelling facilities. Such property shall include houses and mobile homes.

EQUIVALENT RESIDENTIAL UNIT or ERU

The equivalent impervious area of a developed single-family residential property per dwelling unit located within the City based on the statistical average horizontal impervious area of a single-family residence in the City. An equivalent residential unit (ERU) equals 2,656 square feet of impervious surface area.

ERU RATE

The utility fee charged on an equivalent residential unit.

IMPERVIOUS SURFACE AREA

A surface which is compacted or covered with material that is highly resistant to infiltration by water, including, but not limited to, most conventionally surfaced streets, roofs, sidewalks, parking lots, and other similar structures.

REVENUES

All rates, fees, assessments, rentals or other charges or other income received by the utility, in connection with the management and operation of the system, including amounts received from the investment or deposit of moneys in any fund or account and any amounts contributed by the City, fees-in-lieu-of provided by developers or individual residents, and the proceeds from sale of utility bonds.

STORMWATER MANAGEMENT SYSTEM or SYSTEM

The stormwater management infrastructure and equipment of the City and all improvements thereto for stormwater control in the City. Infrastructure and equipment shall include structural and natural stormwater control systems of all types, including, without limitation, retention basins, sewers, conduits, pipelines, pumping and ventilation stations, and other plants, structures, and real and personal property used for support of the system. The system does not include privately owned farm ditches and other private drainage systems.

STORMWATER MANAGEMENT UTILITY or UTILITY

The enterprise fund created by this section to operate, maintain and improve the City's stormwater management system.

UNDEVELOPED PROPERTY

Any parcel which has not been altered from its natural state to disturb or alter the topography or soils on the property in a manner which substantially reduces the rate of infiltration of stormwater into the earth.

UTILITY FEES

The monthly service charges based upon the ERU rate applied to property owners or occupants, including condominium unit owners or tenants (when the tenant or occupant is the party to whom water and sewer service is billed) of developed residential property, developed multi-family residential property and developed nonresidential property, all as more fully described in § 245-23.

§ 245-22. Establishment of stormwater management utility.

- A. The stormwater management utility is established to provide for the general welfare, health, and safety of the City and its residents.
- B. The utility shall deposit in a separate ledger account all revenues collected pursuant to

this section. The funds deposited shall be used exclusively to provide services and facilities related to the stormwater management system. The deposited revenues may be used for the following:

- (1) Acquisition of real or personal property, and interest therein necessary to construct, operate and maintain stormwater control facilities;
- (2) The cost of administration of such programs, to include the establishment of reasonable operating and capital reserves to meet unanticipated or emergency requirements of the utility;
- (3) Engineering and design, debt retirement, construction costs for new facilities, and enlargement or improvement of existing facilities;
- (4) Facility maintenance;
- (5) Monitoring of stormwater control devices; and
- (6) Pollution control and abatement, consistent with City, state and federal regulations for water pollution control and abatement.

§ 245-23. Imposition of utility fees.

Revenues shall be generated to provide for a balanced operating or capital improvement budget, or both, for maintenance and/or improvement of the stormwater management system by setting sufficient levels of utility fees. Income from utility fees shall not exceed actual costs incurred in providing the services and facilities described in § 245-22. Utility fees shall be charged to owners of all developed property in the City; provided, however, where a tenant or occupant is the person to whom water or sewer service, or both, are billed, the utility fee may be charged to such tenant or occupant.

- A. For purposes of determining the utility fee, all properties in the City are classified into one of the following classes:
 - (1) Developed single-family residential property;
 - (2) Developed multi-family residential property;
 - (3) Developed nonresidential property;
 - (4) Undeveloped property; or
 - (5) Agricultural property.
- B. The monthly utility fee for developed single-family residential property shall equal the ERU rate.
- C. The monthly utility fee for developed multi-family residential property shall be the ERU

rate multiplied by the number of residences or dwelling units located on the lot or parcel.

- D. The monthly utility fee for developed nonresidential property shall be the ERU rate multiplied by the numerical factor obtained by dividing the total impervious surface area of a developed nonresidential property by one ERU (2,656 square feet). The numbered factor will be rounded to the nearest tenth of a unit. The minimum utility fee for any developed nonresidential property shall equal the ERU rate.
- E. The utility fee for vacant developed property, both residential and nonresidential, shall be the same as that for occupied property of the same class.
- F. Undeveloped property shall be exempt from the utility fee.
- G. Agricultural property shall be exempt from the utility fee. Provided however, each developed residential unit situated on a parcel devoted to agricultural use shall be charged a fee equal to the ERU rate.

§ 245-24. Billing and payment, interest, liens.

- A. The utility fee is to be paid by the owner of each lot or parcel subject to the utility fee; provided, however, where a tenant or occupant is the person to whom water or sewer service, or both, is billed, the utility fee may be charged to such tenant or occupant. In any case in which a tenant or occupant fails to pay utility fees, the delinquent utility fees shall be collected from the owner of the property. All properties, except undeveloped property, shall be rendered bills or statements for stormwater services. Such bills or statements may be combined with water and sewer bills levied pursuant to Chapter **238**, Sewers and Sewage Disposal, and Chapter **277**, Water, provided that all charges shall be separately stated. The combined bill shall be issued for one total amount. The Director of Finance is hereby authorized and directed to create policies and procedures for the efficient billing and collection of the combined bill, including a policy for allocating payments to the separate charges stated on the combined bill.
- B. The bills or statements shall include a date by which payment shall be due. All bills for charges prescribed by this article shall be due and payable 30 days from the date of the bill and shall be deemed delinquent if not paid in full within such time.
- C. Any bill which has not been paid by the due date shall be deemed delinquent and the account shall be collected by any means available to the City. Notice to the owner shall be provided in every case when stormwater charges incurred by a tenant or occupant become more than 90 days delinquent. All payments and interest due may be recovered by action at law or suit in equity. Unpaid fees and interest accrued shall constitute a lien against the property, ranking on a parity with liens for unpaid taxes. Records of all unpaid fees and interest, indexed by the name of the record owner of the real estate, shall be maintained in the City Treasurer's Office.

- D. In the event charges are not paid when due, interest thereon shall commence on the due date and accrue at the rate of 10% per annum until such time as the overdue payment and interest is paid.
- E. When developed properties are brought into the utility, fees will accrue commencing with the release of the final plumbing inspection for the property. In the absence of a plumbing inspection, utility fees will accrue commencing with release of the final building inspection for the property. A bill will be issued in the next billing cycle and will be prorated for the number of days in which service was provided.
- F. In the event of alterations or additions to developed multi-family property or developed nonresidential property which alter the amount of impervious surface area, the utility fees will be adjusted upon release of the final plumbing inspection. In the absence of a plumbing inspection, utility fees will be adjusted upon release of the final building inspection. A bill will be issued in the next billing cycle and will be prorated for the number of days in which service was provided.

§ 245-25. Adjustment of fees, exemptions, credits.

- A. Full waiver of the utility fee shall be provided to properties owned by federal, state, and local government agencies when those agencies own and provide for maintenance of storm drainage and stormwater control facilities.
- B. Any owner, tenant or occupant who has paid his utility fees and who believes his utility fees to be incorrect may submit an adjustment request to the City Manager or his designee. Adjustment requests shall be made in writing setting forth, in detail, the grounds upon which relief is sought. The responsibility for providing information that supports a change to the stormwater fee lies solely with the property owner. Any dispute of the impervious area determined for a property must be proven using drawings and measurements certified and sealed by a licensed engineer or Class B surveyor. Response to such adjustment requests, whether providing an adjustment or denying an adjustment, shall be made to the requesting person by the City Manager or his designee within 60 days of receipt of the request for adjustment.
- C. The City may provide a system of credits to reduce utility fees for properties on which stormwater control measures substantially mitigate the peak discharge or runoff pollution flowing from such properties or substantially decrease the City's cost of maintaining the stormwater management system. The Department of Public Works will develop written policies to implement the credit system.
 - (1) No credit will be authorized until the City Council approves written policies to implement the system of credits; a copy of the approved policies shall be on file with the City Clerk. The City's policies may make credits retroactive to the date utility fees were initiated. Any bill charges requiring adjustments must be applied through the utility billing system. No credit will be granted for more than three past

years. Nothing shall prevent the City Council from modifying the adopted system of credits, and such modifications may apply to holders of existing credits.

- (2) Each credit allowed against the utility fee is conditioned on the continuing operation and functioning of the stormwater control measure as designed; credited stormwater control measures must comply with all applicable laws, ordinances and regulations, and credits may be rescinded for noncompliance with these standards.
- (3) Each credit for which a customer applies shall be subject to review and approval by the City Manager or his designee. The City Manager may approve or reject any application for a credit in whole or in part.
- (4) Credits shall only be applied to developed lands containing the credited stormwater control measure.

§ 245-26. Limitations of responsibility.

- A. The City shall be responsible only for the portions of the drainage system which are in City maintained street rights-of-way and permanent storm drainage easements conveyed to and accepted by the City. Repairs and improvements to the drainage system shall be in accordance with established standards, policies, and schedules.
- B. The City's acquisition of permanent storm drainage easements and/or the construction or repair by the City of stormwater control measures and drainage facilities does not constitute a warranty against stormwater hazards, including, but not limited to, flooding, erosion, or standing water.

§ 245-27. Severability.

The provisions of this article shall be deemed severable; and if any of the provisions hereof are adjudged to be invalid or unenforceable, the remaining portions of this article shall remain in full force and effect and their validity unimpaired.

Article III. Virginia Stormwater Management Program (VSMP)

[Added 6-10-2014 by Ord. No. 14-1^[1]]

[1]: *Editor's Note: This ordinance stated that it would be in full force and effect as of 7-1-2014.*

§ 245-28. Purpose and authority.

- A. The purpose of this article is to ensure the general health, safety, and welfare of the citizens of Colonial Heights, Virginia, and protect the quality and quantity of state waters from the potential harm of unmanaged stormwater, including protection from a land-

disturbing activity causing unreasonable degradation of properties, water quality, stream channels, and other natural resources, and to establish procedures whereby stormwater requirements related to water quality and quantity shall be administered and enforced.

- B. This article is adopted pursuant to Article 2.3 (§ 62.1-44.15.27 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.

§ 245-29. Definitions.

In addition to the definitions set forth in the Virginia Stormwater Management regulations, as amended, which are expressly adopted and incorporated herein by reference, the following words and terms used in this article have the following meanings unless otherwise specified herein. Where definitions differ, those incorporated herein shall have precedence.

AGREEMENT IN LIEU OF A STORMWATER MANAGEMENT PLAN

A contract between the VSMP authority and the owner or permittee that specifies methods that shall be implemented to comply with the requirements of a VSMP for the construction of a single-family residence; such contract may be executed by the VSMP authority in lieu of a stormwater management plan.

ADMINISTRATOR

The Virginia Stormwater Management Program ("VSMP") authority, including the City staff person or department responsible for administering the VSMP on behalf of the City of Colonial Heights, VA.

APPLICANT

Any person submitting an application for a permit or requesting issuance of a permit under this article.

BEST MANAGEMENT PRACTICE or BMP

Schedules of activities, prohibitions of both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities.

CHESAPEAKE BAY PRESERVATION ACT LAND-DISTURBING ACTIVITY

A land-disturbing activity, including clearing, grading, or excavation, that results in a land disturbance equal to or greater than 2,500 square feet and less than one acre in all areas of jurisdictions so designated as subject to the regulations adopted pursuant to the Chesapeake Bay Preservation Act, which is located in Article 2.5 of Chapter 3.1 of Title 62.1 of the Code of Virginia.

CLEAN WATER ACT or CWA

The federal Clean Water Act (33 U.S.C. 1251 et seq.), formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of

1972, Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, or any subsequent revisions thereto.

COMMON PLAN OF DEVELOPMENT OR SALE

A contiguous area where separate and distinct construction activities may be taking place at different times on different schedules.

CONTROL MEASURE

Any best management practice, or stormwater facility, or other method used to minimize discharge of pollutants to state waters.

DEPARTMENT

The State Department of Environmental Quality.

DEVELOPMENT

Land disturbance and the resulting landform associated with the construction of residential, commercial, industrial, institutional, recreational, transportation or utility facilities or structures or the clearing of land for nonagricultural or nonsilvicultural purposes.

GENERAL PERMIT

The state permit titled General Permit for Discharges of Stormwater From Construction Activities found in Part XIV (9VAC25-880-1 et seq.) of the Regulations authorizing a category of discharges under the CWA and the Act within a geographical area of the Commonwealth of Virginia.

LAND DISTURBANCE or LAND-DISTURBING ACTIVITY

A man-made change to the land surface that potentially changes its runoff characteristics, including clearing, grading, or excavation, except that the term shall not include those exemptions specified in § 245-30C of this article.

LAYOUT

A conceptual drawing sufficient to provide for the specified stormwater management facilities required at the time of approval.

MINOR MODIFICATION

An amendment to an existing General Permit before its expiration not requiring extensive review and evaluation, including, but not limited to, changes in EPA promulgated test protocols, increased monitoring frequency requirements, changes in sampling locations, and changes to compliance dates within the overall compliance schedules. A minor General Permit modification or amendment does not substantially alter General Permit conditions, substantially increase or decrease the amount of surface water impacts, increase the size of the operation, or reduce the capacity of the facility to protect human health or the environment.

OPERATOR

The owner or operator of any facility or activity subject to regulation under this article.

PERMIT or VSMP AUTHORITY PERMIT

An approval to conduct a land-disturbing activity issued by the Administrator for the initiation of a land-disturbing activity, in accordance with this article, and which may only be issued after evidence of General Permit coverage has been provided by the Department.

PERMITTEE

The person to whom the VSMP Authority Permit is issued.

PERSON

Any individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state, governmental body, including federal, state, or local entity as applicable, any interstate body or any other legal entity.

REGULATIONS

The Virginia Stormwater Management Program (VSMP) Permit Regulations, 9VAC25-870, as amended.

SITE

The land or water area where any facility or land-disturbing activity is physically located or conducted, including adjacent land used or preserved in connection with the facility or land-disturbing activity. Areas channelward of mean low water in tidal Virginia shall not be considered part of a site.

STATE

The Commonwealth of Virginia.

STATE BOARD

The State Water Control Board.

STATE PERMIT

An approval to conduct a land-disturbing activity issued by the State Board in the form of a state stormwater individual permit or coverage issued under a state General Permit or an approval issued by the State Board for stormwater discharges from an MS4. Under these state permits, the Commonwealth imposes and enforces requirements pursuant to the federal Clean Water Act and its regulations, and the Virginia Stormwater Management Act and its Regulations.

STATE WATER CONTROL LAW

Chapter 3.1 (§ 62.1-44.2 et seq.) of Title 62.1 of the Code of Virginia.

STATE WATERS

All water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.

STORMWATER

Precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

STORMWATER MANAGEMENT PLAN

A document(s) containing material describing methods for complying with the requirements of § 245-33 of this article.

STORMWATER POLLUTION PREVENTION PLAN or SWPPP

A document that is prepared in accordance with good engineering practices and that identifies potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the construction site, and otherwise meets the requirements of this article. In addition, the document shall identify and require the implementation of control measures, and shall include, but not be limited to, the inclusion of, or the incorporation by reference of, an approved erosion and sediment control plan, an approved stormwater management plan, and a pollution prevention plan.

SUBDIVISION

The same as defined in § 250-2 of the City of Colonial Heights Subdivision Ordinance.

TOTAL MAXIMUM DAILY LOAD or TMDL

The sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, natural background loading and a margin of safety. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. The TMDL process provides for point versus nonpoint source tradeoffs.

VIRGINIA STORMWATER BMP CLEARINGHOUSE WEBSITE

A website that contains detailed design standards and specifications for control measures that may be used in Virginia to comply with the requirements of the Virginia Stormwater Management Act and associated regulations.

VIRGINIA STORMWATER MANAGEMENT ACT or ACT

Article 2.3 (§ 62.1-44.15:24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.

VIRGINIA STORMWATER MANAGEMENT PROGRAM AUTHORITY or VSMP AUTHORITY

An authority approved by the State Board after September 13, 2011, to operate a Virginia Stormwater Management Program.

VIRGINIA STORMWATER MANAGEMENT PROGRAM or VSMP

A program approved by the State Board after September 13, 2011, that has been established by a locality to manage the quality and quantity of runoff resulting from land-disturbing activities and shall include such items as local ordinances, rules, permit requirements, annual standards and specifications, policies and guidelines, technical

materials, and requirements for plan review, inspection, enforcement, where authorized in this article, and evaluation consistent with the requirements of this article and associated regulations.

§ 245-30. Stormwater permit requirement; exemptions.

- A. Except as provided herein, no person may engage in any land-disturbing activity until a permit application has been submitted to the City of Colonial Heights that includes the VSMP permit registration statement, if such statement is required; and after July 1, 2014, a stormwater management plan or an executed agreement in lieu of a stormwater management plan; and approval from the City to begin land disturbance.
- B. Chesapeake Bay Preservation Act land-disturbing activities shall not require the completion of a registration statement or require coverage under the General Permit for Discharges of Stormwater from Construction Activities. A Chesapeake Bay Preservation Act land-disturbing activity shall be subject to an erosion and sediment control plan consistent with the requirements of the Erosion and Sediment Control Ordinance, a stormwater management plan as outlined under Section 16, the technical criteria and administrative requirements for land-disturbing activities outlined in § **245-36**, and the requirements for control measures' long-term maintenance outlined under § **245-37**. Exceptions to these technical criteria and administrative requirements may be requested.
- C. Notwithstanding any other provisions of this article, the following activities are exempt, unless otherwise required by federal law:
- (1) Permitted surface or deep mining operations and projects, or oil and gas operations and projects conducted under the provisions of Title 45.1 of the Code of Virginia;
 - (2) Clearing of lands specifically for agricultural purposes and the management, tilling, planting, or harvesting of agricultural, horticultural, or forest crops, livestock feedlot operations, or as additionally set forth by the State Board in regulations, including engineering operations as follows: construction of terraces, terrace outlets, check dams, desilting basins, dikes, ponds, ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, land drainage, and land irrigation; however, this exception shall not apply to harvesting of forest crops unless the area on which harvesting occurs is reforested artificially or naturally in accordance with the provisions of Chapter 11 (§ 10.1-1100 et seq.) of Title 10.1 of the Code of Virginia or is converted to a bona fide agricultural or improved pasture use as described in Subsection **B** of § 10.1-1163 of Article 9 of Chapter 11 of Title 10.1 of the Code of Virginia;
 - (3) Single-family residences separately built, including additions or modifications to existing single-family detached residential structures, within or outside of a common plan of development or sale are hereby exempt from having a registration statement; however, such projects must adhere to the requirements of the General

Permit. The City may regulate single-family residences in Chesapeake Bay Protection areas where land disturbance exceeds 2,500 square feet in accordance with the Chesapeake Bay Preservation Act (§ 62.1-44.15:67 et seq.);

- (4) Land-disturbing activities that disturb less than one acre of land area except for land-disturbing activity exceeding an area of 2,500 square feet in all areas of the City designated as subject to the Chesapeake Bay Preservation area Designation and Management Regulation (9VAC25-830) adopted pursuant to the Chesapeake Bay Preservation Act (§ 62.1-44.15:67 et seq.) or activities that are part of a larger common plan of development or sale that is one acre or greater of disturbance;
- (5) Discharges to a sanitary sewer or a combined sewer system;
- (6) Activities under a state or federal reclamation program to return an abandoned property to an agricultural or open land use;
- (7) Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity or original construction of the project. The paving of an existing road with a compacted or impervious surface and reestablishment of existing associated ditches and shoulders shall be deemed routine maintenance if performed in accordance with this subsection; and
- (8) Conducting land-disturbing activities in response to a public emergency where the related work requires immediate authorization to avoid imminent endangerment to human health or the environment. In such situations, the Administrator shall be advised of the disturbance within seven days of commencing the land-disturbing activity; and compliance with the administrative requirements of Subsection **A** is required within 30 days of commencing the land-disturbing activity.

§ 245-31. Stormwater Management Program established; submission and approval of plans; prohibitions.

- A. The City of Colonial Heights hereby establishes a Virginia Stormwater Management Program for land-disturbing activities and adopts the applicable regulations that specify standards and specifications for VSMPs promulgated by the State Board for the purposes set out in § **245-28** of this article.
- B. The Colonial Heights City Council hereby designates the Director of Public Works as the Administrator of the Virginia Stormwater Management Program.
- C. No VSMP authority permit shall be issued by the Administrator until the following items have been submitted to and approved by the Administrator as prescribed herein:
 - (1) A permit application that includes a General Permit registration statement;
 - (2) An erosion and sediment control plan approved in accordance with Chapter **241** of

the Code of the City of Colonial Heights; and

- (3) A Stormwater Management Plan that meets the requirements of § **245-33** of this article.
- D. No VSMP authority permit shall be issued until evidence of General Permit coverage is obtained.
- E. No VSMP authority permit shall be issued until the fees required to be paid pursuant to § **245-42**, are received.
- F. No VSMP authority permit shall be issued unless and until the permit application and attendant materials and supporting documentation demonstrate that all land clearing, construction, disturbance, land development and drainage will be done according to the approved permit.
- G. No grading, building or other local permit shall be issued for a property unless a VSMP authority permit has been issued by the Administrator.

§ 245-32. Stormwater Pollution Prevention Plan; contents of plans.

- A. The Stormwater Pollution Prevention Plan (SWPPP) shall include the content specified by Section 9VAC25-870-54 and must also comply with the requirements and general information set forth in Section 9VAC25-880-70, Section II [Stormwater Pollution Prevention Plan] of the General Permit.
- B. The SWPPP shall be amended by the operator whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants to state waters which is not addressed by the existing SWPPP.
- C. The SWPPP must be maintained by the operator at a central location on site. If an on-site location is unavailable, notice of the SWPPP's location must be posted near the main entrance at the construction site. Operators shall make the SWPPP available for public review in accordance with Section II of the General Permit, either electronically or in hard copy.

§ 245-33. Stormwater Management Plan; contents of plan.

- A. The Stormwater Management Plan required in § **245-31** of this article must apply the stormwater management technical criteria set forth in § **245-36** of this article to the entire land-disturbing activity (individual lots in new residential, commercial, or industrial developments shall not be considered separate land-disturbing activities), consider all sources of surface runoff and all sources of subsurface and groundwater flows converted to surface runoff, and include the following information:

- (1) Information on the type and location of stormwater discharges; information on the features of the stormwater being discharged, including surface waters or karst features, if present; and the predevelopment and post-development drainage areas;
- (2) Contact information including the name, address, and telephone number of the owner and the tax reference number and parcel number of the property or properties affected;
- (3) A narrative that includes a description of current site conditions and final site conditions;
- (4) A general description of the proposed stormwater management facilities and the mechanism through which the facilities will be operated and maintained after construction is complete;
- (5) Information on the proposed stormwater management facilities, including the type of facilities, location (including geographical coordinates), acres treated, and the surface waters into which the facility will discharge;
- (6) Hydrologic and hydraulic computations, including runoff characteristics;
- (7) Documentation and calculations verifying compliance with the water quality and quantity requirements of § **245-36** of this article;
- (8) A map or maps of the site that depicts the topography of the site and includes:
 - (a) All contributing drainage areas;
 - (b) Existing streams, ponds, culverts, ditches, wetlands, other water bodies, and floodplains;
 - (c) Soil types, forest cover, and other vegetative areas;
 - (d) Current land use, including existing structures, roads, and locations of known utilities and easements;
 - (e) Sufficient information on adjoining parcels to assess the impacts of stormwater from the site on these parcels;
 - (f) The limits of clearing and grading, and the proposed drainage patterns on the site;
 - (g) Proposed buildings, roads, parking areas, utilities, and stormwater management facilities; and
 - (h) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses, including but not limited to planned location of utilities, roads, and easements.

- B. If an operator intends to meet the water quality and/or quantity requirements set forth in § 245-36 of this article through the use of off-site compliance options, where applicable, then a letter of availability from the off-site provider must be included. Approved off-site options must achieve the necessary nutrient reductions prior to the commencement of the applicant's land-disturbing activity except as otherwise allowed by § 62.1-44, 15:35 of the Code of Virginia.
- C. Elements of the stormwater management plans that include activities regulated under Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 of the Code of Virginia shall be appropriately sealed and signed by a professional engineer registered in the Commonwealth of Virginia pursuant to Article 1 (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1 of the Code of Virginia.
- D. A construction record drawing for permanent stormwater management facilities shall be submitted to the Administrator. The construction record drawing shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia, certifying that the stormwater management facilities have been constructed in accordance with the approved plan.

§ 245-34. Pollution Prevention Plan; contents of plans.

- A. A Pollution Prevention Plan, required by 4VAC50-60-56, shall be developed, implemented, and updated as necessary and must detail the design, installation, implementation, and maintenance of effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:
 - (1) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
 - (2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater; and
 - (3) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.
- B. The Pollution Prevention Plan shall include effective best management practices to prohibit the following discharges:
 - (1) Wastewater from washout of concrete, unless managed by an appropriate control;
 - (2) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;

- (3) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
 - (4) Soaps or solvents used in vehicle and equipment washing.
- C. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls.

§ 245-35. Review of Stormwater Management Plan.

- A. Stormwater Management Plans approved for residential, commercial, or industrial subdivisions shall govern the development of the individual parcels and shall be binding upon any subsequent owner. The Administrator shall review stormwater management plans and shall approve or disapprove a Stormwater Management Plan according to the following:
- (1) The Administrator shall determine the completeness of a plan in accordance with § ~~245-32~~ of this article, and shall notify the applicant, in writing, of such determination within 15 calendar days of receipt. If the plan is deemed to be incomplete, the written notification shall contain the reasons the plan is deemed incomplete.
 - (2) The Administrator shall have an additional 60 calendar days from the date of the communication of completeness to review the plan, except that if a determination of completeness is not made within the time prescribed in Subsection **A(1)**, then the plan shall be deemed complete and the Administrator shall have 60 calendar days from the date of submission to review the plan.
 - (3) The Administrator shall review any plan that has been previously disapproved within 45 calendar days of the date of resubmission.
 - (4) During the review period, the plan shall be approved or disapproved and the decision communicated in writing to the person responsible for the land-disturbing activity or his designated agent. If the plan is not approved, the reasons for not approving the plan shall be provided in writing. Approval or denial shall be based on the plan's compliance with the requirements of this article.
 - (5) If a plan meeting all requirements of this article is submitted and no action is taken within the time provided above in Subsection **A(2)** for review, the plan shall be deemed approved.
- B. Approved stormwater plans may be modified as follows:
- (1) Modifications to an approved Stormwater Management Plan shall be allowed only after review and written approval by the Administrator. The Administrator shall have 60 calendar days to respond in writing either approving or disapproving such

request.

- (2) The Administrator may require that an approved Stormwater Management Plan be amended, within a time prescribed by the Administrator, to address and deficiencies noted during inspections.
- C. The Administrator shall require the submission of a construction record drawing for permanent stormwater management facilities. The Administrator may elect not to require construction record drawings for stormwater management facilities for which recorded maintenance agreements are not required pursuant to § **245-30**.

§ 245-36. Technical criteria for regulated land-disturbing activities.

- A. To protect the quality and quantity of state water from the potential harm of unmanaged stormwater runoff from land-disturbing activities, the City of Colonial Heights, VA, hereby adopts the technical criteria for regulated land-disturbing activities set forth in Part IIB of the Regulations, as amended, expressly to include 9VAC25-870-62 [technical criteria for land-disturbing activities]; 9VAC25-870-63 [water quality design criteria requirements]; 9VAC25-870-65 [water quality compliance]; 9VAC25-870-66 [water quantity]; 9VAC25-870-69 [offsite compliance options]; 9VAC25-870-72 [design storms and hydrologic methods]; 9VAC25-870-74 [stormwater harvesting]; 9VAC25-870-76 [linear development projects]; 9VAC25-870-85 [stormwater management impoundment structures or facilities]; 9VAC25-870-92 [comprehensive stormwater management plans]; 9VAC25-870-93 [technical criteria for regulated land-disturbing activities; grandfathered projects and projects subject to the provisions of 9VAC25-870-47B]; 9VAC25-870-94 [applicability]; 9VAC25-870-95 [general]; 9VAC25-870-96 [water quality]; 9VAC25-870-97 [stream channel erosion]; 9VAC25-870-98 [flooding]; 9VAC25-870-99 [regional (watershed-wide) stormwater management plans], which shall apply to all land-disturbing activities regulated pursuant to this article, except as expressly set forth in Subsection **B** of this section.
- B. Any land-disturbing activity shall be considered grandfathered by the VSMP authority and shall be subject to the Part IIC technical criteria of the VSMP Regulation provided:
- (1) A proffered or conditional zoning plan, zoning with a plan of development, preliminary or final subdivision plat, preliminary or final site plan, or any document determined by the locality to be equivalent thereto, (i) was approved by the locality prior to July 1, 2012, (ii) provided a layout as defined in 9VAC25-870-10, (iii) will comply with the Part IIC technical criteria of the VSMP Regulation, and (iv) has not been subsequently modified or amended in a manner resulting in an increase in the amount of phosphorus leaving each point of discharge, and such that there is no increase in the volume or rate of runoff;

- (2) A state permit has not been issued prior to July 1, 2014; and
- (3) Land disturbance did not commence prior to July 1, 2014.

Land-disturbing activities grandfathered under Subsections **A** and **B** of this section shall remain subject to the Part IIC technical criteria of the VSMP Regulation for one additional state permit cycle. After such time, portions of the project not under construction shall become subject to any new technical criteria adopted by the Board.

In cases where governmental bonding or public debt financing has been issued for a project prior to July 1, 2012, such project shall be subject to the technical criteria of Part IIC of the Regulations.

Nothing in this section shall preclude an operator from constructing to a more stringent standard at his discretion.

- C. In cases where governmental bonding or public debt financing has been issued for a project prior to July 1, 2012, such project shall be subject to the technical requirements of Part IIC of the Regulations, as adopted by the City of Colonial Heights in Subsection **A** above.
- D. The Administrator may grant exceptions to the technical requirements of Part IIB or Part IIC of the Regulations, provided that (i) the exception is the minimum necessary to afford relief, (ii) reasonable and appropriate conditions are imposed so that the intent of the Act, the Regulations, and this article are preserved, (iii) granting the exception will not confer any special privileges that are denied in other similar circumstances, and (iv) exception requests are not based upon conditions or circumstances that are self-imposed or self-created. Economic hardship alone is not sufficient reason to grant an exception from the requirements of this article.
 - (1) Exceptions to the requirement that the land-disturbing activity obtain required VSMP authority permit shall not be given by the Administrator, nor shall the Administrator approve the use of a BMP not found on the Virginia Stormwater BMP Clearinghouse Website, or any other control measure duly approved by the Director.
 - (2) Exceptions to requirements for phosphorus reductions shall not be allowed unless off-site options otherwise permitted pursuant to 4VAC50-60-69 have been considered and found not available.
- E. Nothing in this section shall preclude an operator from constructing to a more stringent standard at its discretion.

§ 245-37. Long-term maintenance of permanent stormwater facilities.

- A. The Administrator shall require the provision of long-term responsibility for maintenance of stormwater management facilities and other techniques specified to manage the quality and quantity of runoff. Such requirements shall be set forth in an instrument recorded in the local land records prior to General Permit termination or earlier as required by the Administrator and shall at a minimum:
- (1) Be submitted to the Administrator for review and approval prior to the approval of the stormwater management plan;
 - (2) Be stated to run with the land;
 - (3) Provide for all necessary access to the property for purposes of maintenance and regulatory inspections;
 - (4) Provide for inspections and maintenance and the submission of inspection and maintenance reports to the Administrator; and
 - (5) Be enforceable by all appropriate governmental parties.

§ 245-38. Monitoring and inspections.

- A. The Administrator shall inspect the land-disturbing activity during construction for:
- (1) Compliance with the approved erosion and sediment control plan;
 - (2) Compliance with the approved stormwater management plan;
 - (3) Development, updating, and implementation of a pollution prevention plan; and
 - (4) Development and implementation of any additional control measure necessary to address a TMDL.
- B. The Administrator or any duly authorized agent of the Administrator may, at reasonable times and under reasonable circumstances, enter any establishment or upon any property, public or private, for the purpose of obtaining information or conducting surveys or investigations necessary in the enforcement of the provisions of this article.
- C. In accordance with a performance bond, cash escrow, letter of credit, any combination thereof, or such other legal arrangement or instrument, the Administrator may also enter any establishment or upon any property, public or private, for the purpose of initiating or maintaining appropriate actions which are required by the permit conditions associated with a land-disturbing activity when a permittee, after proper notice, has failed to take acceptable action within the time specified.
- D. The Administrator may require every VSMP authority permit applicant or permittee, or any such person subject to VSMP authority permit requirements under this article, to furnish when requested such application materials, plan, specifications, and other

pertinent information as may be necessary to accomplish the purposes of this article.

- E. Post-construction inspections of stormwater management facilities required by the provisions of this article shall be conducted by the Administrator or any duly authorized agent of the Administrator pursuant to the City's adopted and State Board approved inspection program and shall occur, at minimum, at least once every five years except as may otherwise be provided for in § 245-37.

§ 245-39. Hearings.

- A. Any permit applicant or permittee, or person subject to this article's requirements, aggrieved by any action of the City of Colonial Heights taken without formal hearing, or by inaction of the City of Colonial Heights, may demand in writing a formal hearing by the Colonial Heights City Council provided a petition requesting such hearing is filed with the Administrator within 30 days after notice of the adverse action, or, in the case of inaction, within 30 days after the City should have acted.
- B. The hearings held under this section shall be conducted by the Colonial Heights City Council at a regular or special meeting of Council, or by at least one member of the City Council as designated to conduct such hearings on behalf of City Council, at a time and place authorized by the City Council.
- C. A verbatim record of such hearing's proceedings shall be taken and filed with the City Clerk.
- D. The Colonial Heights City Council or its designated member, as the case may be, shall have power to issue subpoenas and subpoenas duce tecum; and at the request of any party shall issue such subpoenas. The failure of a witness without legal excuse to appear or to testify or to produce documents shall be acted upon by the local governing body, or its designated member, whose action may include the procurement of an order of enforcement from the circuit court. Witnesses who are subpoenaed shall receive the same fees and reimbursement for car mileage as in civil actions.

§ 245-40. Appeals.

- A. Any applicant who seeks an appeal hearing before the City Council shall be heard at the next regularly scheduled City Council regular meeting, provided that the City Council and other involved parties have at least 30 days' prior notice. In reviewing the Administrator's actions, the City Council shall consider evidence and opinions presented by the aggrieved applicant and Administrator. After considering the evidence and opinions, the City Council may affirm, reverse, or modify the action. The City Council's decision shall be final, subject only to review by the Circuit Court of the City.
- B. Final decisions of the City Council under this article shall be subject to review by the City

of Colonial Heights Circuit Court, provided an appeal is filed within 30 days from the date of any written decision adversely affecting the rights, duties, or privileges of the person engaging in or proposing to engage in land-disturbing activities.

§ 245-41. Enforcement.

- A. If the Administrator determines that there is a failure to comply with the VSMP authority permit conditions or determines there is an unauthorized discharge, notice shall be served upon the permittee or person responsible for carrying out the permit conditions by any of the following means: verbal warnings and inspection reports, notices of corrective action, consent special orders, and notices to comply. Written notices shall be served by registered or certified mail to the address specified in the permit application or by delivery at the site of the development activities to the agent or employee supervising such activities.
- (1) The notice shall specify the measures needed to comply with the permit conditions and shall specify the time within which such measures shall be completed. Upon failure to comply within the time specified, a stop-work order may be issued in accordance with Subsection **B** or the permit may be revoked by the Administrator;
 - (2) If a permittee fails to comply with a notice issued in accordance with this section within the time specified, the Administrator may issue an order requiring the owner, permittee, person responsible for carrying out an approved plan, or the person conducting the land-disturbing activities without an approved plan or required permit to cease all land-disturbing activities until the permit violation has ceased, or an approved plan and required permits are obtained, and specified corrective measures have been completed;
 - (3) Such orders shall be issued in accordance with Chapter **241** of the Colonial Heights City Code. The orders shall become effective upon service on the person by certified mail, return receipt requested, sent to his address specified in the City's land records, or by personal delivery by an agent of the Administrator. However, if the Administrator finds that any such violation is grossly affecting or presents an imminent and substantial danger of causing harmful erosion of land or sediment deposition in waters within the Commonwealth's watersheds or otherwise substantially impacting water quality, it may issue, without advance notice or hearing, an emergency order directing such person to cease immediately all land-disturbing activities on the site and shall provide an opportunity for a hearing, after reasonable notice as to the time and place thereof, to such person, to affirm, modify, amend, or cancel such emergency order. If a person who has been issued an order is not complying with the terms thereof, the Administrator may institute a proceeding for an injunction, mandamus, or other appropriate remedy in accordance with § **245-41C**.

- B. In addition to any other remedy this article provides, if the Administrator or his designee determines that there is a failure to comply with the provisions of this article, he may initiate such informal and/or formal administrative enforcement procedures in a manner that is consistent with City Code § **241-3**.
- C. Any person violating or failing, neglecting, or refusing to obey any rule, regulation, ordinance, order, approved standard or specification, or any permit condition issued by the Administrator may be compelled in a proceeding instituted by the City in Colonial Heights Circuit Court to obey same and to comply therewith by injunction, mandamus, or other appropriate remedy.
- D. Any person who violates any provision of this article, or who fails, neglects, or refuses to comply with any order of the Administrator, shall be subject to a civil penalty not to exceed \$32,500 for each violation. Each day a requirement is violated shall constitute a separate offense.
- (1) Violations for which a penalty may be imposed under this subsection shall include but not be limited to the following:
 - (a) No state permit registration;
 - (b) No SWPPP;
 - (c) Incomplete SWPPP;
 - (d) SWPP not available for review;
 - (e) No approved erosion and sediment control plan;
 - (f) Failure to install stormwater BMPs or erosion and sediment controls;
 - (g) Stormwater BMPs or erosion and sediment controls improperly installed or maintained;
 - (h) Operational deficiencies;
 - (i) Failure to conduct required inspections;
 - (j) Incomplete, improper, or missed inspections; and
 - (k) Discharges not in compliance with the permit requirements of Section 4VAC 50-60-1170 of the General Permit.
 - (2) The Administrator may issue a summons for collection of the civil penalty and the action may be prosecuted in the appropriate court.
 - (3) In imposing a civil penalty pursuant to this subsection, the court may consider the degree of harm caused by the violation and also the economic benefit to the violator from noncompliance.

- (4) Any civil penalties assessed by a court as a result of a summons the City issues shall be paid into the treasury of the City of Colonial Heights to be used for the purpose of minimizing, preventing, managing, or mitigating pollution of the waters of the City and abating environmental pollution therein in such manner as the court may, by order, direct.
- E. Notwithstanding any other civil or equitable remedy provided by this section or by law, any person who willfully or negligently violates any provision of this article, any order of the Administrator, any condition of a permit, or any order of a court shall be guilty of a misdemeanor punishable by confinement in jail for not more than 12 months or a fine of not less than \$2,500 nor more than \$32,500, or both.

§ 245-42. Fees.

- A. Fees for coverage under the General Permit shall be imposed in accordance with Table 1. When a site or sites has been purchased for development within a previously permitted common plan of development or sale, the applicant shall be subject to fees in accordance with the disturbed acreage of its site or sites according to Table 1.

Table 1: Fees for Permit Coverage

Type of Permit	Fee Amount
VSMP General/Stormwater Management	
Small construction activity/land clearing: areas within common plans of development or sale with land disturbance acreage less than 1 acre	\$290
Small construction activity/land clearing: Sites within locally designated Chesapeake Bay Preservation Areas (CBPAs) with land-disturbance acreage greater than or equal to 2,500 SF and less than 0.5 acre	\$290
Small construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 1 acre and less than 5 acres	\$2,700
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres	\$3,400
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres	\$4,500
Large construction activity/land clearing: Sites or areas within common plans of development or sale with land disturbance	\$6,100

acreage equal to or greater than 50 acres and less than 100 acres

Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 100 acres \$9,600

- B. Fees for the modification or transfer of registration statements from the General Permit issued by Colonial Heights shall be imposed in accordance with Table 2. If the permit modifications result in changes to stormwater management plans that require the City's additional review, such review shall be subject to the fees set out in Table 2. The fee assessed shall be based on total disturbed acreage of the site.

Table 2: Fees for the Modification or Transfer of Registration Statements for the General Permit for Discharges of Stormwater from Construction Activities

Type of Permit	Fee Amount
VSMP General/Stormwater Management	
Small construction activity/land clearing: areas within common plans of development or sale with land disturbance acreage less than 1 acre	\$20
Small construction activity/land clearing: sites within locally designated CBPAs with land-disturbance acreage greater than or equal to 2,500 SF and less than 0.5 acre	\$20
Small construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 1 acre and less than 5 acres	\$200
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres	\$250
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres	\$300
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 50 acres and less than 100 acres	\$450
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 100 acres	\$700

- C. The following annual maintenance fees shall be imposed in accordance with Table 3, including fees imposed on expired permits that have been administratively continued. With respect to the General Permit, these fees shall apply until the permit coverage is

terminated.

Table 3: Permit Maintenance Fees

Type of Permit	Fee Amount
VSMP General/Stormwater Management	
Small construction activity/land clearing: areas within common plans of development or sale with land disturbance acreage less than 1 acre	\$50
Small construction activity/land clearing: sites within locally designated CBPAs with land-disturbance acreage greater than or equal to 2,500 SF and less than 0.5 acre	\$50
Small construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 1 acre and less than 5 acres	\$400
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres	\$500
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres	\$650
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 50 acres and less than 100 acres	\$900
Large construction activity/land clearing: sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 100 acres	\$1,400

General Permit coverage maintenance fees shall be paid annually to the City of Colonial Heights, by the anniversary date of the General Permit coverage. No permit will be reissued or automatically continued without payment of the required fee. General Permit coverage maintenance fees shall be applied until notice of termination is effective.

- D. The fees set forth in Subsections **A**, **B** and **C** above shall apply to:
- (1) All persons seeking coverage under the General Permit;
 - (2) All permittees who request modifications to or transfers of their existing registration statement for coverage under a General Permit;
 - (3) Persons whose coverage under the General Permit has been revoked shall reapply for an individual Permit for Discharges of Stormwater from Construction Activities;

and

- (4) Permit and permit coverage maintenance fees outlined under § **245-42** shall apply to each General Permit holder.
- E. No permit application fees will be assessed to:
- (1) Permittees who request minor modifications to permits as defined in § **245-30** of this article. Permit modification at the request of the permittee resulting in changes to stormwater management plans that require the Administrator's additional review shall not be exempt.
 - (2) Permittees whose permits are modified or amended at the Department's initiative, excluding errors in the registration statement identified by the Administrator or errors related to the site's acreage.
- F. All insufficient payments will be deemed nonpayments, and the applicant shall be notified of any incomplete payments. Interest shall be charged for late payments at the underpayment rate set forth in § 58.1-15 of the Code of Virginia and is calculated on a monthly basis at the applicable periodic rate. A 10% late payment fee shall be charged to any delinquent (over 90 days past due) account. The City of Colonial Heights shall be entitled to all remedies available under the Code of Virginia in collecting any past due amount.

§ 245-43. Performance bond.

- A. Prior to the issuance of any permit, the applicant shall be required to submit a reasonable performance bond with surety, cash escrow, letter of credit, any combination thereof, or such other legal arrangement acceptable to the Colonial Heights City Attorney, for the full costs of the anticipated work, to ensure that measures could be taken by the City of Colonial Heights at the applicant's expense should he fail, after proper notice, within the time specified to initiate or maintain appropriate actions the permit requires of him. If the City of Colonial Heights takes such action upon the applicant's failure, the City may collect from the applicant for the difference should the cost of the action and any needed corrective action exceed the amount of the security held. Within 60 days of the completion of the permit conditions, such bond, cash escrow, letter of credit or other legal arrangement, or unexpended or any unobligated portion thereof, shall be refunded to the applicant or terminated.

OUTFALL_ID	Subwatershed	Nearest_Ac	HUC_Code	Outfall_Ty	__of_Pipes	Pipe_s__Ma	Pipe_s__Di	Pipe_s__Sh	Other_Pipe
OF-001	Oldtown Creek	Old Town	JA-J	Pipe	Single	RCP	36 in.	Circular	NA
OF-002	Swift Creek	Nantucket Ct	JA-J	Pipe	Double	RCP	15 in.	Circular	NA
OF-003	Appomattox	Kennon Point	JA-J	Pipe	Single	RCP	36 in.	Circular	NA
OF-004	Oldtown Creek	Temple	JA-J	Pipe	Single	RCP	24 in.	Circular	NA
OF-005	Swift Creek	Forest View	JA-I	Pipe	Single	CMP	36 in.	Circular	NA
OF-006	Appomattox	Clifton Drive	JA-J	Pipe	Single	RCP	36 in.	Circular	NA
OF-007	Oldtown Creek	Temple	JA-J	Pipe	Single	RCP	24 in.	Circular	NA
OF-008	Swift Creek	Forest View	JA-I	Pipe	Single	N/A	24 in.	Circular	NA
OF-009	Appomattox	Yacht Basin Drive	JA-J	Pipe	Single	RCP	48 in.	Circular	NA
OF-010	Oldtown Creek	Old Town	JA-J	Pipe	Single	RCP	24 in.	Elliptical	NA
OF-011	Swift Creek	Sherwood at Springdale	JA-I	Pipe	Single	Steel	21 in.	Circular	NA
OF-012	Appomattox	Royal Oak	JA-J	Pipe	Double	RCP	36 in.	Circular	NA
OF-013	Swift Creek	Sherwood Drive	JA-I	Pipe	Single	RCP	24 in.	Circular	NA
OF-014	Oldtown Creek	Conduit	JA-J	Pipe	Single	RCP	48 in.	Circular	NA
OF-015	Swift Creek	Sherwood Drive	JA-I	Pipe	Single	RCP	24 in.	Circular	NA
OF-016	Oldtown Creek	Temple at Conduit	JA-J	Pipe	Double	RCP	96 in.	Box	NA
OF-017	Swift Creek	Sherwood Drive	JA-I	Pipe	Single	RCP	30 in.	Circular	NA
OF-018	Oldtown Creek	Old Town	JA-J	Pipe	Single	CMP	12 in.	Circular	NA
OF-019	Oldtown Creek	Old Town	JA-J	Pipe	Single	RCP	24 in.	Circular	NA
OF-020	Swift Creek	Forest View	JA-I	Pipe	Single	CMP	36 in.	Circular	NA
OF-021	Oldtown Creek	Old Town	JA-J	Pipe	Double	Steel	27 in.	Elliptical	NA
OF-022	Oldtown Creek	Newcastle	JA-J	Pipe	N/A	N/A	N/A	N/A	NA
OF-023	Swift Creek	Springdale	JA-I	Pipe	Single	RCP	36 in.	Circular	NA
OF-024	Oldtown Creek	Boulevard	JA-J	Pipe	Single	RCP	18 in.	Circular	NA
OF-025	Swift Creek	Boulevard	JA-I	Pipe	Single	RCP	30 in.	Circular	NA
OF-026	Oldtown Creek	Cedar Lane	JA-J	Pipe	Single	RCP	30 in.	Circular	NA
OF-027	Swift Creek	Boulevard	JA-I	Pipe	Single	RCP	18 in.	Circular	NA
OF-028	Swift Creek	Longhorn Drive	JA-I	Pipe	Single	RCP	48 in.	Circular	NA
OF-029	Swift Creek	Bearchase Court	JA-I	Pipe	Single	RCP	24 in.	Circular	NA
OF-030	Swift Creek	Waterfront Drive	JA-J	Pipe	Single	RCP	48 in.	Circular	NA
OF-031	Swift Creek	Ellerslie	JA-I	Pipe	Single	RCP	18 in.	Circular	NA
OF-032	Swift Creek	Taylor	JA-I	Pipe	Single	RCP	18 in.	Circular	NA
OF-033	Swift Creek	Taylor	JA-I	Pipe	Single	RCP	36 in.	Circular	NA
OF-034	Swift Creek	Huntington	JA-I	Pipe	Single	RCP	24 in.	Circular	NA
OF-035	Swift Creek	Huntington	JA-I	Pipe	Single	PVC	36 in.	Circular	NA
OF-036	Swift Creek	Comstock Drive	JA-J	Pipe	Single	RCP	36 in.	Circular	NA
OF-037	Appomattox	Waterfront	JA-J	Pipe	Single	RCP	24 in.	Elliptical	NA
OF-038	Swift Creek	Sherwood Drive	JA-I	Pipe	Single	RCP		Circular	NA
OF-039	Fleets Branch	Bradsher Ave	JA-J	Pipe	Single	RCP	54 in.	Circular	NA
OF-040	Oldtown Creek	Snead	JA-J	Pipe	Single	CMP	36 in.	Circular	NA
OF-041	Oldtown Creek	Ridge	JA-J	Pipe	Triple	CMP	36 in.	Elliptical	NA
OF-042	Fleets Branch	Chesterfield Ave	JA-J	Pipe	Single	RCP	48 in.	Circular	NA
OF-043	Oldtown Creek	Meridian	JA-J	Box culvert	Double	RCP	54 in.	Box	NA
OF-044	Swift Creek	Ayrshire	JA-I	Pipe	Single	RCP	24 in.	Circular	NA
OF-045	Fleets Branch	Cambridge	JA-J	Box, Pipe	Double	RCP	48 in.	Box	NA
OF-046	Oldtown Creek	Wildwood	JA-J	Pipe	Single	RCP	24 in.	Circular	NA
OF-047	Oldtown Creek	Driftwood	JA-J	Pipe	Single	RCP	18 in.	Circular	NA
OF-048	Oldtown Creek	Snead	JA-J	Pipe	Single	RCP	12 in.	Circular	NA
OF-049	Appomattox	Covington	JA-J						
OF-050	Swift Creek	Forest View	JA-I	Pipe	Single	RCP		Circular	NA
OF-051	Swift Creek	Pertshire	JA-I	Pipe	Single	CMP	60 in.	Circular	NA
OF-052	Oldtown Creek	Concord	JA-J	Pipe	Single	RCP	24 in.	Circular	NA
OF-053	Oldtown Creek	Concord	JA-J	Pipe	Single	RCP	18 in.	Circular	NA
OF-054	Oldtown Creek	Concord	JA-J	Pipe	Single	RCP	18 in.	Circular	NA
OF-055	Fleets Branch	Orchard	JA-J	Pipe	Single	RCP	12 in.	Circular	NA
OF-056	Appomattox	Duke of Gloucester	JA-J	Pipe	Single	RCP		Circular	NA
OF-057	Swift Creek	Fairmont/Winston	JA-I	Pipe	Single	CMP	48 in.	Circular	NA
OF-058	Swift Creek	Nottingham (end)	JA-I	Pipe	Single			Circular	NA
OF-059	Swift Creek	Shade Tree	JA-I	Pipe	Single	RCP	54 in.	Circular	NA
OF-060	Swift Creek	Hemlock (end)	JA-I	Pipe	Single	RCP	18 in.	Circular	NA
OF-061	Appomattox	Breezy Hill	JA-J	Pipe	Single	RCP			
OF-062	Appomattox	Charles Dimmock	JA-J	Pipe					
OF-063	Oldtown Creek	Fairfax Ave	JA-J	Pipe	Single	RCP	18 in.		
OF-064	Oldtown Creek	Fairfax Ave (in culvert)	JA-J	Pipe	Single	RCP	24 in.		
OF-066	Oldtown Creek	sadler	JA44	Pipe	Single	RCP	18 in.	Circular	na
OF-067	Oldtown Creek	taswell	JA44	Pipe	Single	RCP	18 in.	Circular	na
OF-068	Swift Creek	taswell	JA44	Pipe	Single	RCP	18 in.	Circular	na
OF-070	Swift Creek	camelot	JA44	Pipe	Single	RCP	18 in.	Circular	na
OF-071	Swift Creek	seaton	JA44	Pipe	Single	RCP	18 in.	Circular	na
OF-072	Swift Creek	tudor	JA44	Pipe	Single	RCP	15 in.	Circular	na
OF-073	Swift Creek	nottingham	JA44	Pipe	Single	RCP	15 in.	Circular	na
OF-075	Swift Creek	hargrave	JA44	Pipe	Single	RCP	24 in.	Circular	na
OF-076	Swift Creek	yew	JA44	Pipe	Single	RCP	18 in.	Circular	na

OF-077	Swift Creek	east	JA44	Pipe	Single	RCP	18 in.	Circular	na
OF-078	Oldtown Creek	brookedge	JA44	Pipe	Single	RCP	24 in.	Circular	na
OF-079	Oldtown Creek	brookedge	JA44	Pipe	Single	RCP	24 in.	Circular	na
OF-080	Appomattox	chesterfield	JA40	Pipe	Single	RCP	15 in.	Circular	na
OF-081	Appomattox	chesterfield	JA40	Pipe	Single	RCP	15 in.	Circular	na
OF-082	Swift Creek	dunlop farms blvd	JA44	Pipe	Single	RCP	36 in.	Circular	na
OF-083	Swift Creek	bluffs	JA44	Pipe	Single	RCP	24 in.	Circular	na
OF-084	Swift Creek	bluffs	JA44	Pipe	Single	RCP	24 in.	Circular	na
OF-085	Swift Creek	windmere	JA44	Pipe	Single	RCP	30 in.	Circular	na
OF-086	Swift Creek	heroda	JA44	Pipe	Single	RCP	15 in.	Circular	na
OF-088	Appomattox	whipporwill	JA40	Pipe	Single	PVC	15 in.	Circular	na
OF-090	Appomattox	deerwood	JA40	Pipe	Single	PVC	24 in.	Circular	na
OF-091	Appomattox	lexington dr	JA40	Pipe	Single	RCP	18 in.	Circular	na
OF-092	Appomattox	choptank	JA40	Pipe	Single	RCP	15 in.	Circular	na
OF-093	Appomattox	whitehall	JA40	Pipe	Single	Steel	15 in.	Circular	na
OF-094	Appomattox	duke of gloucester	JA40	Pipe	Single	RCP	18 in.	Circular	na
OF-096	Appomattox	breezy hill	JA40	Pipe	Single	RCP	15 in.	Circular	na

Pipe_s__Su	Sediment_i	Channel_Sh	Channel_Ma	Channel_Ty	Channel_De	Top_Width	Bottom_Wid	Channel_Se	Obstructio	Other_Regulated	
No	None	N/A	N/A	N/A	NA	NA	NA	N/A	None	NA	Yes
No		Irregular	Earthen	Collected Flo	10	25	15	Partially Obstructed	Roots/Collapse	Eroding	No
Partially		Irregular	Earthen	Collected Flo	1	4	2	Partially Obstructed	Other	Sediment	Yes
No	Partially Obstructed	Irregular	Earthen	Collected Flo	NA	NA	NA	Fully Obstructed	Other	All	Yes
No		N/A	N/A	N/A	0	0	0	N/A	None	NA	Yes
Fully	N/A	N/A	N/A	N/A	0	0	0	N/A	None	NA	Yes
No	Partially Obstructed	Irregular	Earthen	Collected Flo	NA	NA	NA	Fully Obstructed	Other	All	Yes
Partially	Partially Obstructed	N/A	N/A	N/A	0	0	0	N/A	Roots/Brush	Debris	Yes
No	N/A	Irregular	Earthen	Collected Flo	30	60	15	N/A	Collaped Structure	Erosion	Yes
No	None	Irregular	Rip Rap	Constructed	INA	NA	NA	None	Roots/Brush	NA	No
No	None	N/A	N/A	N/A	0	0	0	None	None	NA	Yes
No	None	Irregular	Earthen	Collected Flo	1	4	1	Partially Obstructed	Collaped Structure	Rocks	Yes
No	N/A	Triangular	Concrete	Constructed	I1	3	1	None	None	NA	Yes
No	None	Irregular	Earthen	Collected Flo	1	3	1	None	Roots/Brush	NA	Yes
No		Triangular	Concrete	Constructed	I1	3	1	None	None	NA	Yes
No	None	Irregular	Earthen	Collected Flo	2	18	12	Partially Obstructed	Other	Sediment	Yes
No	None	Triangular	Concrete	Constructed	I1	3	1	None	None	NA	Yes
No	None	N/A	N/A	N/A	NA	NA	NA	N/A	None	NA	Yes
No	None	Irregular	Rip Rap	Collected Flo	8	15	6	None	Roots/Brush	NA	Yes
Partially	None	N/A	N/A	N/A	0	0	0	N/A	None	NA	Yes
No	N/A	Irregular	Rip Rap	Collected Flo	6	12	5	N/A	None	NA	Yes
N/A	N/A	Irregular	Rip Rap	Collected Flo	3	8	3	N/A	Roots/Brush	Badly c	Yes
No		N/A	N/A	N/A	0	0	0	None	Collaped Structure	NA	Yes
No	None	N/A	N/A	N/A	NA	NA	NA	N/A	None	NA	Yes
Partially	None	N/A	N/A	N/A	0	0	0	N/A	Other	Standli	Yes
No	None	Irregular	Rip Rap	Constructed	I3	10	4	None	None	NA	Yes
No	Partially Obstructed	N/A	N/A	N/A	0	0	0	Partially Obstructed	Other	Rocks,	Yes
No	None	Irregular	Concrete	Constructed	I4	12	3	None	None	NA	Yes
No	None	Irregular	Rip Rap	Collected Flo	1	NA	2	Partially Obstructed	Roots/Brush	Trash	Yes
Partially	Partially Obstructed	Irregular	Rip Rap	Collected Flo	NA	NA	15	Partially Obstructed	Other	Rocks,	Yes
No	None	Trapezoidal	Concrete	Constructed	I3	3	1	None	None	NA	No
No		N/A	N/A	N/A	0	0	0	None	Other	Sediment	Yes
Partially	None	Irregular	Earthen	Collected Flo	4	10	4	None	None	NA	Yes
No	None	N/A	N/A	N/A	0	0	0	None	None	NA	Yes
No	None	N/A	N/A	N/A	0	0	0	N/A	None	NA	Yes
Partially	None	Irregular	Earthen	Collected Flo	NA	0	0	Partially Obstructed	Other	Rocks ;	No
No	None	N/A	N/A	N/A	0	0	0	N/A	None	NA	Yes
No	None	Irregular	Earthen	Collected Flo	15	40	10	None	None	NA	Yes
No	None	Irregular	Concrete	Constructed	I12	20	6	None	Earth, structure	Sediment	No
No	None	Irregular	Earthen	Collected Flo	3	10	4	None	Some rip-rap	NA	No
No	None	Trapezoidal	Concrete	Constructed	I1	6	2	None	None	NA	No
No	None	Trapezoidal	Concrete	Constructed	I3	12	4	None	None	NA	No
Partially	None	Irregular	Earthen	Collected Flo	1	8	3	Partially Obstructed	Sediment, brush	NA	No
Partially	None	Irregular	Earthen	Collected Flo	25	40	8	Partially Obstructed	Trees, brush	NA	No
No	None	Irregular	Earthen	Collected Flo	20	15	5	Partially Obstructed	Trees/Collapse	Severe	Yes
No	None	Irregular	Earthen	Collected Flo	20	15	8	Partially Obstructed	Trees, structure	Partial	Yes
No	None	Irregular	Earthen	Collected Flo	5	10	3	None	None	NA	No
No	None	N/A	N/A	N/A	NA	NA	NA	N/A	None	NA	No
No	None	Trapezoidal	Concrete	Constructed	I3	10	3	None	None	NA	No
No	None	N/A	N/A	N/A	NA	NA	NA	N/A	None	NA	Yes
No	None	N/A	N/A	N/A	NA	NA	NA	N/A	None	NA	Yes
No	None	N/A	N/A	N/A	NA	NA	NA	N/A	None	NA	Yes
Partially	Partially Obstructed	Irregular	Earthen	Collected Flo	2	8	1	Partially Obstructed	Brush, earth	NA	No
No	Partially Obstructed	Irregular	Earthen	Collected Flo	5	15	3	Partially Obstructed	Leaves/Debris	Fence	No
Partially	None	Irregular	Earthen	Collected Flo	1.5	8	2	None	Rip-rap	Yes	
No		Irregular	Rip Rap	N/A					Rip-rap	Yes	
Partially	Partially Obstructed	Irregular	Rip Rap	Collected Flo	1	18	4	None	None	Yes	
No	None	Irregular	Rip Rap	Collected Flo	4	10	1	Partially Obstructed	Earth	NA	Yes
										Yes	
										Yes	
										Yes	
										Yes	
No	None	Irregular	Earthen	Collected Flo	na	3ft	3ft	None	None	na	Quad
No	Partially Obstructed	Triangular	Earthen	Collected Flo	na	na	na	Fully Obstructed	Roots/Brush	trash yard waste	B
Partially	None	Irregular	Rip Rap	Constructed	Ina	na	na	Partially Obstructed	Other	rip rap in bmp as designed	B
No	None	Irregular	Earthen	Collected Flo	na	na	na	None	Roots/Brush	na	B
Partially	N/A	Irregular	Earthen	Collected Flo	na	na	na	None	None	na	D
No	None	Irregular	Rip Rap	Collected Flo	na	na	na	None	None	ivy	C
No	None	Trapezoidal	Rip Rap	Collected Flo	na	na	na	None	None	na	C
No	None	Triangular	Rip Rap	Collected Flo	na	na	na	None	None	na	D
No	None	Triangular	Rip Rap	Constructed	Ina	na	na	None	None	na	D

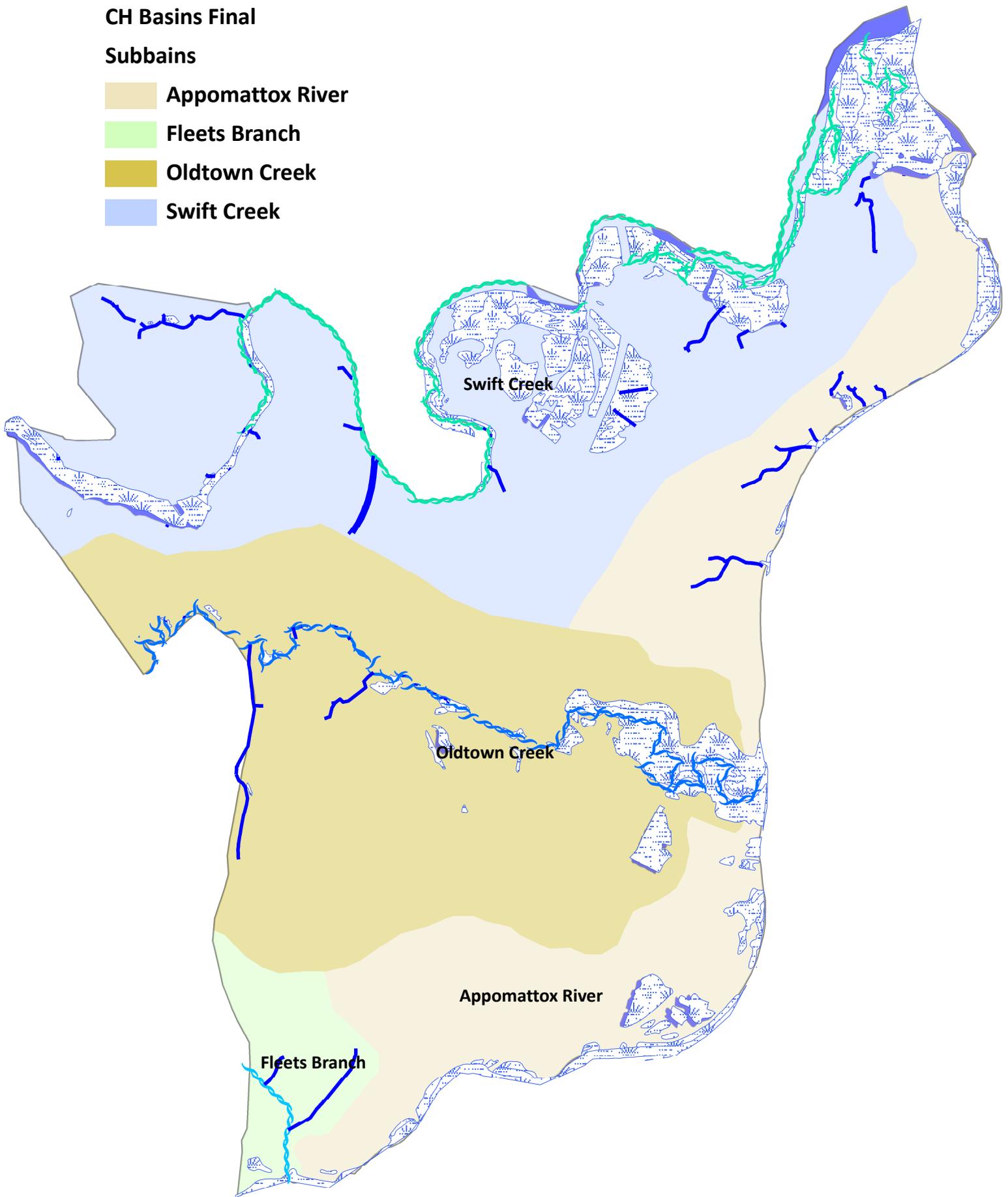
No	None	Trapezoidal	Rip Rap	Constructed Ina	na	na	None	Other	overgrown with ivy	D
No	None	Trapezoidal	Concrete	Constructed Ina	na	na	None	None	none	A
Partially	None	Irregular	Earthen	Collected Flo na	na	na	Partially Obstructed	Other	earth	A
No	None	Irregular	Earthen	Constructed I4ft	10ft	3ft	None	Other	tall grass	A
No	None	Irregular	Earthen	Constructed I4ft	10ft	2ft	Partially Obstructed	Other	tall grass	C
No	None	Triangluar	Rip Rap	Collected Flo na	na	na	None	Other	small saplings	C
No	None	Triangluar	Concrete	Constructed I2ft	4ft	2ft	None	None	na	C
No	Fully Obstructed	Irregular	Earthen	Collected Flo na	na	na	Fully Obstructed	Other	silt	D
Partially	None	N/A	Earthen	Collected Flo na	na	na	Partially Obstructed	Other	silt/sand	A
Fully	None	Irregular	Earthen	Collected Flo na	na	na	Partially Obstructed	Other	lilly pads	A
No	None	Irregular	Earthen	Collected Flo na	na	na	None	None	na	A
No	None	Triangluar	Rip Rap	Constructed Ina	na	na	Partially Obstructed	Other	trees silt	A
No	None	Irregular	Earthen	Collected Flo na	na	na	Fully Obstructed	Collaped Structure	roots	A
No	None	Irregular	Earthen	Collected Flo na	na	na	None	Roots/Brush	na	A
No	None	Irregular	Rip Rap	Collected Flo na	12 ft	12 ft	Partially Obstructed	Roots/Brush	na	A
No	None	Irregular	Concrete	Constructed Ina	na	na	None	Roots/Brush	earth trees	A
No	None	Trapezoidal	Concrete	Constructed Ina	na	na	None	None	na	A

Colonial Heights Drainage Sub-Basins

CH Basins Final

Subbasins

-  Appomattox River
-  Fleets Branch
-  Oldtown Creek
-  Swift Creek



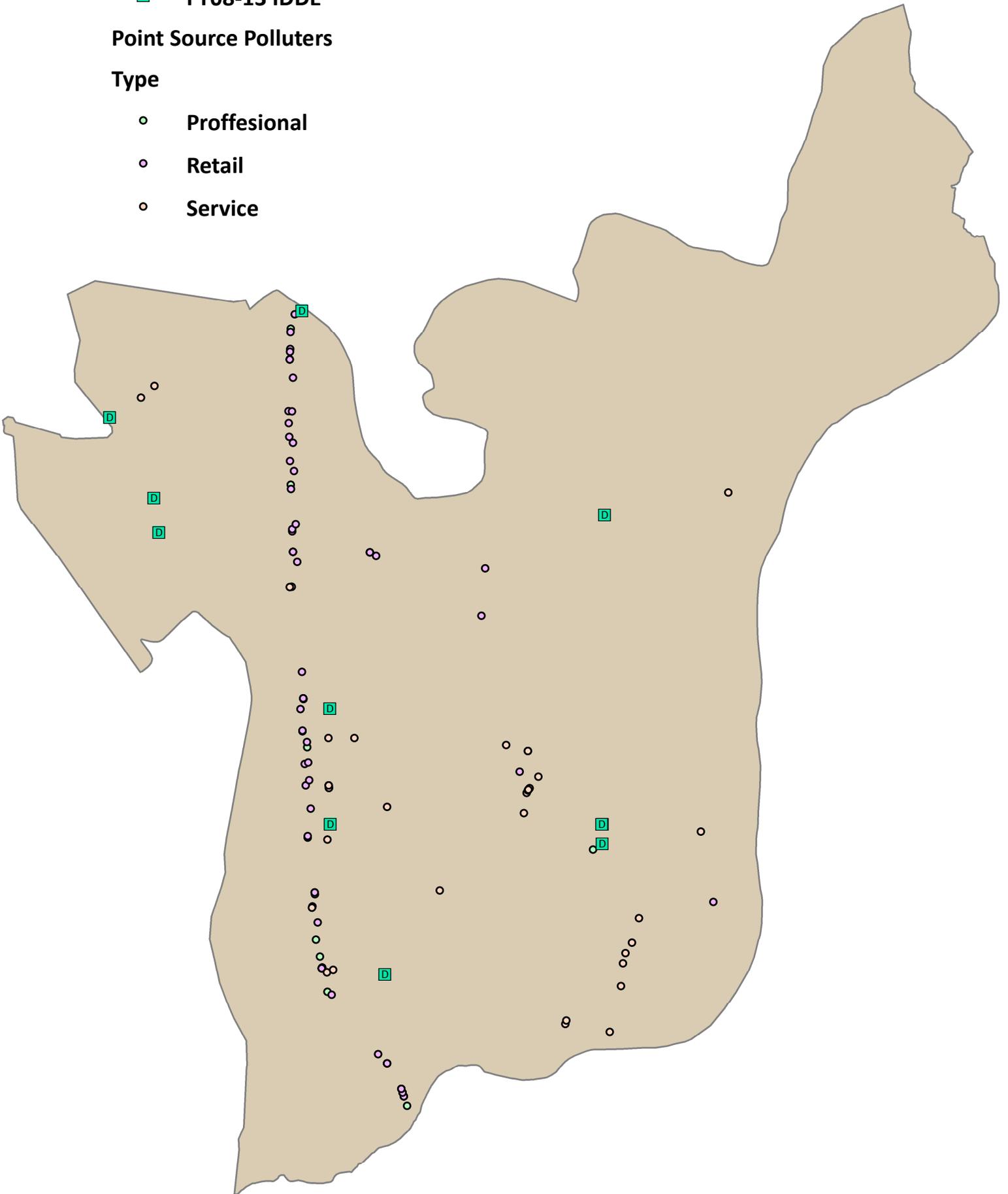
Potential & Recorded Dischargers

 FY08-13 IDDE

Point Source Polluters

Type

-  Professional
-  Retail
-  Service



STATUS	SCORE	MATCH_	SIDE	MATCH_ADDR	ARC_STREET	ARC_CIT	ARC_STA	TRADE_I	FULL_NA	ADDRESS	ADDRESS1	STREET_NAM	TYPE	CITY	STATE	ZIP	LICENSE_NO	BUS_CAT	FACILITIES
M	100	A	L	3666 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3666 Boulevard	Colonial	VA	Colonial Heights Ve	3666 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090236		Professional	
M	100	A	R	2905 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	2905 Boulevard	Colonial	VA	Virginia Medical Gr	2905 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091367		Professional	
M	100	A	L	3512 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3512 Boulevard	Colonial	VA	Colonial Heights Me	3512 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091762		Professional	
M	100	A	R	2425 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	2425 Boulevard	Colonial	VA	Caldwell, Caldwe	2425 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091299		Professional	
M	100	A	L	3628 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3628 Boulevard	Colonial	VA	Swift Creek Family	3628 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090590		Professional	
M	100	A	L	3626 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3626 Boulevard	Colonial	VA	Family Auto Sales L	3626 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090448		Professional	
U	0	A			456 Charles Dimmock Pkwy	Colonial	VA	Commonwealth De	456 Char	#####	#####	Charles Dimmock	Pkwy	Colonial	VA	23834	20091296		Professional
U	0	A			280 Charles Dimmock Pkwy	Colonial	VA	Virginia Physicians f	280 Char	#####	#####	Charles Dimmock	Pkwy	Colonial	VA	23834	20091070		Professional
U	0	A			436 Clairmont Court	Colonial	VA	Virginia Urology Ce	436 Clair	#####	#####	Clairmont	Court	Colonial	VA	23834	20090264		Professional
U	0	A			430 Clairmont Court	Colonial	VA	Commonwealth Per	430 Clair	#####	#####	Clairmont	Court	Colonial	VA	23834	20091577		Professional
U	0	A			131 Jennick Drive	Colonial	VA	Colonial Orthopedic	131 Jenn	#####	#####	Jennick	Drive	Colonial	VA	23834	20090797		Professional
U	0	A			439 Jennick Drive	Colonial	VA	Riverview Physician	439 Jenn	#####	#####	Jennick	Drive	Colonial	VA	23834	20090431		Professional
M	100	A	L	400 SOUTHPARK BLVD, COLONIAL HEIGHTS, VA, 23834	400 Southpark Boulevard	Colonial	VA	Southside Pediatric	400 Sout	#####	#####	Southpark	Boulevard	Colonial	VA	23834	20091291		Professional
M	100	A	L	210 TEMPLE AVE, COLONIAL HEIGHTS, VA, 23834	210 Temple Ave	Colonial	VA	Infant Jesus Childre	210 Tem	#####	#####	Temple	Ave	Colonial	VA	23834	20091000		Professional
M	100	A	L	1829 SOUTHPARK BLVD, COLONIAL HEIGHTS, VA, 23834	1829 Southpark Boulevard	Colonial	VA	Great Ch Great Ch	1829 So	#####	#####	Southpark	Boulevard	Colonial	VA	23834	20090255		Retail
M	100	A	R	111 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	111 Boulevard	Colonial	VA	Ackerma James Ac	111 Boul	#####	#####	Boulevard	Colonial	VA	23834	20090281		Retail	
M	100	A	L	3104 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3104 Boulevard	Colonial	VA	Advance Auto Parts	3104 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090899		Retail	
M	100	A	L	1702 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1702 Boulevard	Colonial	VA	Blue's Pl Michael	1702 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090366		Retail	
M	100	A	R	2231 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	2231 Boulevard	Colonial	VA	Boulevard Jose E M	2231 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090454		Retail	
M	100	A	R	915 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	915 Boulevard	Colonial	VA	Boulevard MS & KS	915 Boul	#####	#####	Boulevard	Colonial	VA	23834	20090860		Retail	
M	100	A	L	3116 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3116 Boulevard	Colonial	VA	Burger King	3116 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091049		Retail	
M	100	A	R	1717 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1717 Boulevard	Colonial	VA	Captain T & J Res	1717 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090742		Retail	
M	100	A	L	3620 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3620 Boulevard	Colonial	VA	Carini Re Carini's F	3620 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090519		Retail	
M	100	A	R	3409 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3409 Boulevard	Colonial	VA	Chanello Roodes F	3409 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090037		Retail	
M	100	A	R	3517 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3517 Boulevard	Colonial	VA	Colonial Lyman W	3517 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091895		Retail	
M	100	A	L	3220 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3220 Boulevard	Colonial	VA	Colonial Rass Inc	3220 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090327		Retail	
M	100	A	L	3008 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3008 Boulevard	Colonial	VA	Dante's f Dante's f	3008 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091851		Retail	
M	100	A	R	2227 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	2227 Boulevard	Colonial	VA	Dominos G & M Pi	2227 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090033		Retail	
M	100	A	R	3609 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3609 Boulevard	Colonial	VA	Don Jose Don Jose	3609 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090196		Retail	
M	100	A	R	2231 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	2231 Boulevard	Colonial	VA	The Flam ABA LLC	2231 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091843		Retail	
M	100	A	R	115 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	115 Boulevard	Colonial	VA	Harris Al Delmar J	115 Boul	#####	#####	Boulevard	Colonial	VA	23834	20090803		Retail	
M	100	A	R	2011 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	2011 Boulevard	Colonial	VA	Jersey M Wal Corp	2011 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091131		Retail	
M	100	A	L	1906 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1906 Boulevard	Colonial	VA	Kentucky Kentucky	1906 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090458		Retail	
M	100	A	R	1621 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1621 Boulevard	Colonial	VA	Laines JPF Inc	1621 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090460		Retail	
M	100	A	L	3620 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3620 Boulevard	Colonial	VA	Tom Lew Tom Lew	3620 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090301		Retail	
M	100	A	L	2104 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	2104 Boulevard	Colonial	VA	Little Caesars	2104 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091149		Retail	
M	100	A	L	636 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	636 Boulevard	Colonial	VA	Master T RWRW II	636 Boul	#####	#####	Boulevard	Colonial	VA	23834	20090259		Retail	
M	100	A	R	1101 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1101 Boulevard	Colonial	VA	McDonalds	1101 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091153		Retail	
M	100	A	L	2208 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	2208 Boulevard	Colonial	VA	Mi Rodeo Los Prim	2208 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090230		Retail	
M	100	A	R	119 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	119 Boulevard	Colonial	VA	Oxford Iv Oxford N	119 Boul	#####	#####	Boulevard	Colonial	VA	23834	20090767		Retail	
M	100	A	L	1410 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1410 Boulevard	Colonial	VA	The Pain J & P of f	1410 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090335		Retail	
M	100	A	L	3420 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3420 Boulevard	Colonial	VA	Pino's Ita Marcello	3420 Bo	#####	#####	Boulevard	Colonial	VA	23834	20091150		Retail	
M	100	A	L	3650 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3650 Boulevard	Colonial	VA	Pleasure Pleasure	3650 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090866		Retail	
M	100	A	R	1907 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1907 Boulevard	Colonial	VA	Staples A Colonial	1907 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090406		Retail	
M	100	A	R	3107 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3107 Boulevard	Colonial	VA	Top's Chi Song Yan	3107 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090996		Retail	
M	100	A	R	1115 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1115 Boulevard	Colonial	VA	Tuffy Mu Lizco Inc	1115 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090553		Retail	
M	100	A	R	609 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	609 Boulevard	Colonial	VA	Vincenzo Vincenzo	609 Boul	#####	#####	Boulevard	Colonial	VA	23834	20090500		Retail	
M	100	A	R	3737 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3737 Boulevard	Colonial	VA	Wagstaff Danny W	3737 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090284		Retail	
M	100	A	L	1018 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1018 Boulevard	Colonial	VA	What-A- Jack T Br	1018 Bo	#####	#####	Boulevard	Colonial	VA	23834	20090469		Retail	
M	100	A	R	118 BRUCE AVE, COLONIAL HEIGHTS, VA, 23834	118 Bruce Ave	Colonial	VA	Battlefie Wilson W	118 Bruc	#####	#####	Bruce	Ave	Colonial	VA	23834	20090085		Retail
U	0	A			458 Charles Dimmock Pkwy	Colonial	VA	Quiznos Fazdins I	458 Eller	#####	#####	Charles Dimmock	Pkwy	Colonial	VA	23834	20091536		Retail
M	95	A	R	241 CHARLES H DIMMOCK PKY, COLONIAL HEIGHTS, VA	241 Charles Dimmock Pkwy	Colonial	VA	El Capori Zito, LLC	241 Char	#####	#####	Charles Dimmock	Pkwy	Colonial	VA	23834	20091613		Retail
M	100	A	R	2501 CONDUIT RD, COLONIAL HEIGHTS, VA, 23834	2501 Conduit Road	Colonial	VA	Golden C ESC Rest	2501 Co	#####	#####	Conduit	Road	Colonial	VA	23834	20090416		Retail
U	0	A			1 Dunlop Village Village	Colonial	VA	Colonial Rosa-Ner	1 Dunlop	#####	#####	Dunlop Village	Village	Colonial	VA	23834	20090160		Retail
U	0	A			34 Dunlop Village	Colonial	VA	No 1 Nev No 1 Nev	34 Dunlo	#####	#####	Dunlop Village	Village	Colonial	VA	23834	20090138		Retail
M	86	A	R	405 E ELLERSLIE AVE, COLONIAL HEIGHTS, VA, 23834	405 Ellerslie Ave	Colonial	VA	Virginia l Rodney f	405 Eller	#####	#####	Ellerslie	Ave	Colonial	VA	23834	20091561		Retail
M	100	A	L	1700 SNEAD AVE, COLONIAL HEIGHTS, VA, 23834	1700 Snead Ave	Colonial	VA	Briggs Al Mark Bri	1700 Sne	#####	#####	Snead	Ave	Colonial	VA	23834	20090945		Retail
M	100	A	L	1718 SNEAD AVE, COLONIAL HEIGHTS, VA, 23834	1718 Snead Ave	Colonial	VA	Colonial Autowor	1718 Sne	#####	#####	Snead	Ave	Colonial	VA	23834	20090134		Retail
U	0	A			170 Southgate Square	Colonial	VA	Los Band Leopoldc	170 Sout	#####	#####	Southgate	Square	Colonial	VA	23834	20091281		Retail
U	0	A			200 Southgate Square	Colonial	VA	New Chir New Chir	200 Sout	#####	#####	Southgate	Square	Colonial	VA	23834	20090935		Retail
M	100	A	R	401 SOUTHPARK BLVD, COLONIAL HEIGHTS, VA, 23834	401 Southpark Blvd	Colonial	VA	Burger King	401 Sout	#####	#####	Southpark	Blvd	Colonial	VA	23834	20091512		Retail
M	85	A	R	707 SOUTHPARK BLVD, COLONIAL HEIGHTS, VA, 23834	707 Southpark	Colonial	VA	Five Guys Famous B	707 Sout	#####	#####	Southpark	Blvd	Colonial	VA	23834	20091540		Retail
M	100	A	R	591 SOUTHPARK BLVD, COLONIAL HEIGHTS, VA, 23834	591 Southpark Blvd	Colonial	VA	Castawa Kelly Sca	591 Sout	#####	#####	Southpark	Blvd	Colonial	VA	23834	20090959		Retail
M	100	A	R	384 SOUTHPARK CIR, COLONIAL HEIGHTS, VA, 23834	384 Southpark Circle	Colonial	VA	Chick-Fil Donovan	384 Sout	#####	#####	Southpark	Circle	Colonial	VA	23834	20091042		Retail
M	100	A	R	294 SOUTHPARK CIR, COLONIAL HEIGHTS, VA, 23834	294 Southpark Circle	Colonial	VA	Dairy Qu J & A Inc	294 Sout	#####	#####	Southpark	Circle	Colonial	VA	23834	20091356		Retail
M	100	A	R	366 SOUTHPARK CIR, COLONIAL HEIGHTS, VA, 23834	366 Southpark Circle	Colonial	VA	Great Ste S & G Cr	366 Sout	#####	#####	Southpark	Circle	Colonial	VA	23834	20090954		Retail
M	100	A	L	411 SOUTHPARK CIR, COLONIAL HEIGHTS, VA, 23834	411 Southpark Circle	Colonial	VA	McDonalds	411 Sout	#####	#####	Southpark	Circle	Colonial	VA	23834	20090472		Retail
M	100	A	L	648 SOUTHPARK BLVD, COLONIAL HEIGHTS, VA, 23834	648 Southpark Boulevard	Colonial	VA	Padow's Mariett I	648 Sout	#####	#####	Southpark	Boulevard	Colonial	VA	23834	20090893		Retail

M	100	A	R	388 SOUTH PARK CIR, COLONIAL HEIGHTS, VA, 23834	388 Southpark Circle	Colonial	VA	Sino Wol	Ying Qin	388 Sout	#####	Southpark	Circle	Colonial	VA	23834	20091627	Retail
M	85	A	R	378 SOUTH PARK CIR, COLONIAL HEIGHTS, VA, 23834	378 Southpark Boulevard	Colonial	VA	Stir Fry	Stir Fry	378 Sout	#####	Southpark	Boulevard	Colonial	VA	23834	20090177	Retail
M	100	A	R	501 SOUTH PARK BLVD, COLONIAL HEIGHTS, VA, 23834	501 Southpark Boulevard	Colonial	VA	Subway	Shree Sh	501 Sout	#####	Southpark	Boulevard	Colonial	VA	23834	20090445	Retail
M	85	A	R	671 SOUTH PARK BLVD, COLONIAL HEIGHTS, VA, 23834	671 Southpark	Colonial	VA	Subway	Desjardis	671 Sout	#####	Southpark		Colonial	VA	23834	20091389	Retail
T	71	A	R	380 SOUTH PARK CIR, COLONIAL HEIGHTS, VA, 23834	381 Southpark Circle	Colonial	VA	Subway	Epieleka	381 Sout	#####	Southpark	Circle	Colonial	VA	23834	20091516	Retail
M	100	A	L	628 SOUTH PARK BLVD, COLONIAL HEIGHTS, VA, 23834	628 Southpark Boulevard	Colonial	VA	Taco Bell	Burger B	628 Sout	#####	Southpark	Boulevard	Colonial	VA	23834	20091268	Retail
M	100	A	R	116 TASWELL AVE, COLONIAL HEIGHTS, VA, 23834	116 Taswell Ave	Colonial	VA	Carlton's	Clifford E	116 Tasw	#####	Taswell	Ave	Colonial	VA	23834	20090656	Retail
M	100	A	L	1000 TEMPLE AVE, COLONIAL HEIGHTS, VA, 23834	1000 Temple Ave	Colonial	VA	Conner S	Robert H	1000 Ter	#####	Temple	Ave	Colonial	VA	23834	20091743	Retail
M	100	A	R	961 TEMPLE AVE, COLONIAL HEIGHTS, VA, 23834	961 Temple Ave	Colonial	VA	Uppy's D	Uppy's C	961 Tem	#####	Temple	Ave	Colonial	VA	23834	20091669	Retail
M	100	A	R	107 TEMPLE LAKE DR, COLONIAL HEIGHTS, VA, 23834	107 Temple Lake Drive	Colonial	VA	Arby's		107 Tem	#####	Temple Lake	Drive	Colonial	VA	23834	20090404	Retail
M	100	A	R	111 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	111 Boulevard	Colonial	VA	Ackerma	James Ac	111 Boul	#####	Boulevard		Colonial	VA	23834	20090461	Service
M	100	A	L	654 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	654 Boulevard	Colonial	VA	Ann's Cle	David J L	654 Boul	#####	Boulevard		Colonial	VA	23834	20091474	Service
M	100	A	R	225 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	225 Boulevard	Colonial	VA	Buddy's	Buddy W	225 Boul	#####	Boulevard		Colonial	VA	23834	20091415	Service
M	100	A	R	101 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	101 Boulevard	Colonial	VA	Cal's Inc	Calvin M	101 Boul	#####	Boulevard		Colonial	VA	23834	20090143	Service
M	100	A	L	3224 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3224 Boulevard	Colonial	VA	Colonial	FD & B A	3224 Box	#####	Boulevard		Colonial	VA	23834	20090420	Service
M	100	A	L	2100 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	2100 Boulevard	Colonial	VA	Executiv	Tremayn	2100 Box	#####	Boulevard		Colonial	VA	23834	20091312	Service
M	100	A	L	610 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	610 Boulevard	Colonial	VA	Flagstop	Flagstop	610 Boul	#####	Boulevard		Colonial	VA	23834	20091212	Service
M	100	A	R	115 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	115 Boulevard	Colonial	VA	Harris A	Delmer J	115 Boul	#####	Boulevard		Colonial	VA	23834	20090735	Service
M	100	A	R	1919 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1919 Boulevard	Colonial	VA	Johnson	Johnson	1919 Box	#####	Boulevard		Colonial	VA	23834	20090130	Service
M	100	A	L	636 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	636 Boulevard	Colonial	VA	Master T	RWRW II	636 Boul	#####	Boulevard		Colonial	VA	23834	20090382	Service
M	100	A	L	712 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	712 Boulevard	Colonial	VA	Meineke	Charles C	712 Boul	#####	Boulevard		Colonial	VA	23834	20091196	Service
M	100	A	L	1400 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1400 Boulevard	Colonial	VA	Midas At	TMT LLC	1400 Box	#####	Boulevard		Colonial	VA	23834	20090849	Service
M	100	A	L	3008 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3008 Boulevard	Colonial	VA	Motorcy	Motorcy	3008 Box	#####	Boulevard		Colonial	VA	23834	20091757	Service
M	100	A	R	305 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	305 Boulevard	Colonial	VA	Palmore	Palmore	305 Boul	#####	Boulevard		Colonial	VA	23834	20091537	Service
M	100	A	R	119 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	119 Boulevard	Colonial	VA	Sarek Au	Ralf Sare	119 Boul	#####	Boulevard		Colonial	VA	23834	20091697	Service
M	100	A	L	3300 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3300 Boulevard	Colonial	VA	Sherwoo	Sherwoo	3300 Box	#####	Boulevard		Colonial	VA	23834	20090868	Service
M	100	A	R	225 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	225 Boulevard	Colonial	VA	Shumate	Delmer J	225 Boul	#####	Boulevard		Colonial	VA	23834	20090056	Service
M	79	A	R	1115 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	1115 Boulevard	Colonial	VA	Tuffy Mu	Lizco Inc	1115 Box	#####	Boulevard		Colonial	VA	23234	20090325	Service
M	100	A	R	3245 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3245 Boulevard	Colonial	VA	Victory L	Shawn &	3245 Box	#####	Boulevard		Colonial	VA	23834	20090881	Service
M	100	A	L	3504 BOULEVARD, COLONIAL HEIGHTS, VA, 23834	3504 Boulevard	Colonial	VA	Wamsley	C Neil W	3504 Box	#####	Boulevard		Colonial	VA	23834	20090869	Service
M	100	A	R	118 BRUCE AVE, COLONIAL HEIGHTS, VA, 23834	118 Bruce Ave	Colonial	VA	Battlefie	Wilson W	118 Bruc	#####	Bruce	Ave	Colonial	VA	23834	20090159	Service
M	100	A	R	235 DUNLOP FARMS BLVD, COLONIAL HEIGHTS, VA, 23834	235 Dunlop Farms Boulevard	Colonial	VA	The Dunl	Coordin	235 Dunl	#####	Dunlop Farms	Boulevard	Colonial	VA	23834	20090540	Service
U	0	A			22 Dunlop Village	Colonial	VA	CJW Dry	Jeam S P	22 Dunlo	#####	Dunlop Village		Colonial	VA	23834	20090683	Service
M	86	A	R	831 E ELLERSLIE AVE, COLONIAL HEIGHTS, VA, 23834	831 Ellerslie Ave	Colonial	VA	Colonial	Colonial	831 Eller	#####	Ellerslie	Ave	Colonial	VA	23834	20090536	Service
M	86	A	R	405 E ELLERSLIE AVE, COLONIAL HEIGHTS, VA, 23834	405 Ellerslie Ave	Colonial	VA	Parlow A	Rodney f	405 Eller	#####	Ellerslie	Ave	Colonial	VA	23834	20091670	Service
M	86	A	R	435 E ELLERSLIE AVE, COLONIAL HEIGHTS, VA, 23834	435 Ellerslie Ave Avenue	Colonial	VA	All Seaso	All Seaso	435 Eller	#####	Ellerslie Ave	Avenue	Colonial	VA	23834	20091441	Service
M	100	A	R	517 JAMES AVE, COLONIAL HEIGHTS, VA, 23834	517 James Ave	Colonial	VA	Carville's	Joseph C	517 Jam	#####	James	Ave	Colonial	VA	23834	20091708	Service
M	100	A	L	1010 KENSINGTON AVE, COLONIAL HEIGHTS, VA, 23834	1010 Kensington Ave	Colonial	VA	Signatur	Signatur	1010 Ker	#####	Kensington	Ave	Colonial	VA	23834	20091350	Service
M	100	A	L	192 LYONS AVE, COLONIAL HEIGHTS, VA, 23834	192 Lyons Ave	Colonial	VA	Balch Alij	Christopl	192 Lyon	#####	Lyons	Ave	Colonial	VA	23834	20091245	Service
M	100	A	R	303 NORWOOD DR, COLONIAL HEIGHTS, VA, 23834	303 Norwood Drive	Colonial	VA	Colonial	M Sidney	303 Norw	#####	Norwood	Drive	Colonial	VA	23834	20090901	Service
M	100	A	R	303 NOTTINGHAM DR, COLONIAL HEIGHTS, VA, 23834	303 Nottingham Drive	Colonial	VA	Auto Tec	Mutaz Y	303 Nott	#####	Nottingham	Drive	Colonial	VA	23834	20091572	Service
M	85	A	R	105 PICKWICK AVE, COLONIAL HEIGHTS, VA, 23834	105 Pickwick Circle	Colonial	VA	A Rainbo	Harry E V	105 Pick	#####	Pickwick	Circle	Colonial	VA	23834	20091854	Service
M	100	A	L	40 PICKWICK AVE, COLONIAL HEIGHTS, VA, 23834	40 Pickwick Avenue	Colonial	VA	Aqua Cle	Glory Far	40 Pickw	#####	Pickwick	Avenue	Colonial	VA	23834	20090329	Service
M	96	A	R	1312 RIVEROAKS DR, COLONIAL HEIGHTS, VA, 23834	1312 River Oaks Drive	Colonial	VA	Stone Mi	Stone Mi	1312 Riv	#####	River Oaks	Drive	Colonial	VA	23834	20091359	Service
M	100	A	R	100 ROANOKE AVE, COLONIAL HEIGHTS, VA, 23834	100 Roanoke Ave	Colonial	VA	Colonial	Colonial	100 Roar	#####	Roanoke	Ave	Colonial	VA	23834	20090633	Service
M	100	A	L	1700 SNEAD AVE, COLONIAL HEIGHTS, VA, 23834	1700 Snead Ave	Colonial	VA	Briggs Al	Mark Bri	1700 Sne	#####	Snead	Ave	Colonial	VA	23834	20090344	Service
M	100	A	L	1718 SNEAD AVE, COLONIAL HEIGHTS, VA, 23834	1718 Snead Ave	Colonial	VA	Colonial	Autowor	1718 Sne	#####	Snead	Ave	Colonial	VA	23834	20091154	Service
U	0	A			184 Southgate Square	Colonial	VA	The Dry	Dolan/Ni	184 Sout	#####	Southgate	Square	Colonial	VA	23834	20090605	Service
M	100	A	R	100 TASWELL AVE, COLONIAL HEIGHTS, VA, 23834	100 Taswell Ave	Colonial	VA	Colonial	Paul Mai	100 Tasw	#####	Taswell	Ave	Colonial	VA	23834	20091619	Service
M	100	A	R	303 TEMPLE AVE, COLONIAL HEIGHTS, VA, 23834	303 Temple Avenue	Colonial	VA	A-1 Stea	David Kri	303 Tem	#####	Temple	Avenue	Colonial	VA	23834	20090231	Service
M	100	A	L	1000 TEMPLE AVE, COLONIAL HEIGHTS, VA, 23834	1000 Temple Ave	Colonial	VA	Conner S	Robert H	1000 Ter	#####	Temple	Ave	Colonial	VA	23834	20090497	Service



Department of Public Works
 201 James Avenue
 Colonial Heights, VA 23834

Colonial Heights Stormwater Management Ordinance

What your business needs to know about



Department of Public Works
 City of Colonial Heights
 201 James Avenue
 Colonial Heights, Virginia 23834
 (804) 520-9334

STORMWATER & YOUR BUSINESS

Stormwater Ordinance

Colonial Heights Stormwater Ordinance, driven by clean water regulations like the Clean Water Act, seeks to protect the City's receiving waters as well as the integrity and efficiency of the City's storm sewage system. As everyone operating or living in the City contributes to the storm sewer system, your business may be affected by the ordinance in some important ways.

What does the ordinance prohibit?

The ordinance is intended to prohibit two categories of activity: illicit connections and illegal discharges. An illicit connection is any drain or conveyance, either surface or subsurface, which allows an illegal discharge to enter the storm drain system, including any conveyances which allow any non-storm water discharge including sewage, wastewater, and wash water to enter the storm drain system and any connections to the system from indoor drains and sinks, regardless of whether such drain or connection had been previously allowed, permitted, or approved by the authorized enforcement agency. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by the authorized enforcement agency. An illegal discharge is any direct or indirect non-storm

water discharge to the storm drain system. The only permitted illegal discharge exemptions are water line flushing, landscape irrigation or lawn watering, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, non-commercial washing of vehicles, swimming pools (if dechlorinated - less than one PPM chlorine), fire fighting activities, discharges authorized by the enforcement agency as being necessary to protect public health and safety, and any other water source meeting applicable water quality standards. Dye testing, as well, is an allowable discharge, but requires a verbal notification to the Department of Public Works prior to the time of the test.

How does the ordinance impact my business?

Many businesses, as a natural byproduct of their daily business operations, produce or handle materials that are or will become waste. This is true particularly in the service industry. As well, many service business facilities have drains and other outlets that could be discharging wastes or be illegally connected to the storm sewer system. Penalties for violations include fines as high as \$30,000 dollars and revocation of access to the storm sewer system, so having an illegal discharge could greatly impact your business.

Ordinance Enforcement

Department of Public Works staff periodically inspect areas of the City for violations of the Stormwater Ordinance. Testing and reconnaissance of the storm sewer system allow Department personnel to understand if and where illicit connections have been made, and personnel routinely consider discharge practices and their adherence to the ordinance restrictions. Taking proactive steps to monitor and correct, if necessary, your business's discharges will save you time and monetary penalties in the future.

Preventing discharges before they begin...

Whether or not you operate an automotive service, a laundromat, a restaurant or a landscape service, there are several strategies you can employ to help eliminate the possibility of illegal discharges at your business. If your business, whatever its type, has facilities with floor drains, ask the Department of Public Works' Engineering Division if floor plans for your facilities exist. With these you may be able to determine if the floor drains are connected to the sanitary or storm sewer. Two other steps you can take follow below.

1. Keep water from contacting work areas

Work areas can be contaminated by raw materials, processed liquids, grease, oily wastes, heavy metals, and automotive and chemical fluids. Surfaces used for storing outdoor equipment or materials and for

maintaining vehicles, for example, could all be sources of illegal discharges. As water runs across these work areas, it picks up contaminants as it flows. If that water reaches a storm drain or ditch, those contaminants will be discharged to the storm sewer system and are then considered illegal discharges. To prevent these, consider the following:

- *Keep stormwater from contacting any industrial areas, either indoors or out.*
- *Install roofs or move industrial operations indoors to keep rain from falling onto work areas.*
- *Avoid practices like hosing down outdoor areas or washing commercial vehicles where the waste water will enter the storm sewer system.*

2. Educate employees about preventing stormwater pollution

The first strategy won't work unless your employees and coworkers accurately understand that improper disposal of materials into the storm sewer system endangers it and pollutes the City's waters, and could result in penalties. Inform and remind your coworkers and employees that:

- *Proper equipment washing procedures at designated washing areas prevents illegal discharges*
- *Closing all covers at dumpsters and other storage areas helps ensure compliance*
- *'Topping-off' or overfilling fuel tanks increases the chances that you are illegally discharging*

Illegal discharges at your business...

Different businesses, by discharging larger quantities or different types of wastewater and utilizing varied waste disposal practices, affect the storm sewer system in different ways. You can take business-specific prevention measures to decrease the chances that your business will be penalized for an illegal discharge.

⊕ Automotive Services

Vehicle maintenance, by its nature, involves circumstances that make illegal discharges possible. Take steps to eliminate discharges by disconnecting and covering any floor drains that are not necessary for your operation. Use absorbents for spills and sweep these up instead of hosing the areas down. Make sure that any chemicals and fluids are closed properly, stored above ground level either inside or out of any weather. Have any underground storage tanks evaluated for leaks or seepage, and maintain any grease or sand traps on a regular basis. If your facility produces untreated wash water, you will need to have some means to capture and treat it on-site.

⊕ Restaurants

Food preparation and dish washing also produce large amounts of waste water. As with automotive services, your business's wash water must discharge to the sanitary sewer, and not the storm sewer. Be certain that grease is disposed of in compliance with applicable law, and make certain that employees understand

that pouring any greases or wastes down storm drains constitutes an ordinance violation.

⊕ Landscapers and Lawn Services

Landscaping services often produce large amounts of brush and other debris. If you own or operate such a service, you'll need to ensure that no brush, leaves, debris or topsoil are being stored or disposed of in or near stream banks or other stormwater conveyance channels. Excess fertilizers or pesticides should never be disposed of in or around storm drains or stored where they will be exposed to rainfall and stormwater runoff.

⊕ Laundromats

Laundry and washing services, as well, need to take measures to ensure that wash water and cleaning agents and contaminants are not entering the storm sewer and are not being improperly stored, where they might come in contact with stormwater runoff.

Saving time and money...

Understanding the intent and the restrictions of the Stormwater Ordinance will save you time and money. Knowing what is prohibited and what is allowable will help determine your site's layout, how you'll need to retrofit your existing site, or what practices will prevent ordinance violations and fines.

**CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 /
PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of
Development [Added 6-9-1992 by Ord. No. 92-6]**

ARTICLE IA, Plan of Development [Added 6-9-1992 by Ord. No. 92-6]

**CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 /
PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of
Development [Added 6-9-1992 by Ord. No. 92-6] / § 286-16.1. Title.**

§ 286-16.1. Title.

This Article shall be known and may be cited as the "City of Colonial Heights Plan of Development Regulations" or simply as the "POD regulations."

**CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 /
PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of
Development [Added 6-9-1992 by Ord. No. 92-6] / § 286-16.2. Authority.**

§ 286-16.2. Authority.

The City Council, pursuant to the recommendation of the Planning Commission and public hearing in accordance with Code of Virginia, § 15.1-431,^{EN(1)} does hereby exercise the police power conferred by City Charter Sec. 17.10 to assure the orderly development of land and the police power conferred by Code of Virginia, § 15.1-491(h),^{EN(2)} to require the submission and approval of plans of development.

**CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 /
PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of
Development [Added 6-9-1992 by Ord. No. 92-6] / § 286-16.3. Purpose; penalties.**

§ 286-16.3. Purpose; penalties.

A. The purpose of the requirements of this article as to the approval of plans of development is to provide for the submission of sufficient plans and information and to enable adequate

opportunity for review of such to ensure compliance with the provisions of this chapter.

- B. Any person violating the provisions of this article shall be subject to a fine of not less than \$10 nor more than \$1,000.

CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 / PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of Development [Added 6-9-1992 by Ord. No. 92-6] / § 286-16.4. Applicability and exceptions.

§ 286-16.4. Applicability and exceptions.

A. The following uses require a plan of development under the provisions of this article:

- (1) Churches, schools or colleges, hospitals, nursing homes, institutional buildings, public buildings, parks and playgrounds.
- (2) Any land use or development for which a special use permit is required.
- (3) Any land use or development, including ingress and egress, in the following zoning districts: R-4, R-TH, R-PO, P-BO, B-1, B-2, B-3, M-L, M-1, M-2 and PUD.

B. Exceptions. Exceptions shall be as follows:

- (1) Single- and two-family dwellings except as may be required by the Building Code, Article XXV of this chapter and other applicable regulations, all of which shall require administrative approval only.
- (2) Boundary line adjustments and vacation of lot lines when no site improvements are proposed and subdivisions and resubdivisions, except as may be required by Article XXV of this chapter.
- (3) Minor additions to existing facilities as determined by regulations promulgated by the Zoning Administrator and City Engineer.

CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 / PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of Development [Added 6-9-1992 by Ord. No. 92-6] / § 286-16.5. Compliance with approved final plan required; prerequisite to issuance of building permit.

§ 286-16.5. Compliance with approved final plan required; prerequisite to issuance of

building permit.

- A. It shall be unlawful for any person to construct, erect or structurally alter any building or structure or develop, change or improve land for which a plan of development is required except in accordance with the approved final plan of development.
- B. No building permit shall be issued to construct, erect or alter any building or structure or develop or improve any land that is subject to the provisions of this article until a final plan of development has been submitted and approved for construction.

CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 / PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of Development [Added 6-9-1992 by Ord. No. 92-6] / § 286-16.6. General procedure for plan approval.

§ 286-16.6. General procedure for plan approval.

- A. The developer or his agent shall prepare a preliminary plan of development in accordance with the provisions of this article, including a proposal for the installation of improvements and intended dedications of lands and utilities for public use as may be required by § 286-16.18 of this article. The developer shall then file a letter of application for conditional approval of the preliminary plan of development along with 12 copies of the preliminary plan of development with the Zoning Administrator. The plan shall be accompanied by a check payable to the City Treasurer evidencing the payment of all plan of development review fees as prescribed in the schedule of fees.
- B. A preliminary content review shall be made by the plan reviewing authorities. After receipt of preliminary comments by all reviewing authorities, the preliminary plan of development and pertinent review comments shall be presented to the Planning Commission for conditional approval.
- C. Upon receiving conditional approval, the developer shall incorporate the comments of the Planning Commission and preliminary review comments of the plan reviewing authorities into the plan of development and submit a final plan of development to the Zoning Administrator. Planning Commission action is not necessary on the final plan.
- D. The final plan of development shall be reviewed by the plan reviewing authorities in detail. When all reviewing authorities are satisfied that the final plan of development has met all requirements, and upon receipt of required performance documents, the final plan of development shall be stamped "Approved for Construction" by the City Engineer. No construction is to commence until the final plan of development has been signed by the City

Engineer.

CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 / PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of Development [Added 6-9-1992 by Ord. No. 92-6] / § 286-16.7. Review fees. [Amended 2-12-2002 by Ord. No. 02-2; 7-8-2008 by Ord. No. 08-14]

§ 286-16.7. Review fees. [Amended 2-12-2002 by Ord. No. 02-2; 7-8-2008 by Ord. No. 08-14]

There shall be a charge of \$300 for the examination and approval or disapproval of every preliminary plan of development submitted for conditional approval. At the time of filing the preliminary plan of development, the developer shall deposit with the Zoning Administrator a check payable to the City Treasurer, to be deposited in the general fund.

CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 / PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of Development [Added 6-9-1992 by Ord. No. 92-6] / § 286-16.8. Persons authorized to prepare plans.

§ 286-16.8. Persons authorized to prepare plans.

Plans of development or any portion thereof involving engineering, architectural design or land surveying shall be prepared or certified respectively by an engineer, architect or land surveyor duly registered by the Commonwealth of Virginia to practice as such.

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§ 286-16.9. Preliminary plan.

- A. A preliminary plan of development shall be prepared on one or more sheets as needed to show clearly the information required by this article and to facilitate review and approval of the preliminary plan of development. If prepared in more than one sheet, match lines shall clearly indicate where the sheets join.
- B. A preliminary master concept plan may be requested for large areas planned to be developed in stages. Further changes, additions or deletions may be submitted as preliminary plans of

development wherein only that portion of the land or building affected need be shown.

- C. The preliminary plan of development may be submitted on standard reproduction papers, generally 24 by 36 inches, and shall be clearly legible, having white background and blue or black lines.
- D. Every preliminary plan of development shall show the following information on plan sheets and include where necessary and applicable such additional supporting documentation as may be required:
 - (1) Name and location of development.
 - (2) Name(s) and address(es) of the owner or owners of record and the name and address of the applicant.
 - (3) Name and address of the preparer of the plan of development.
 - (4) Current zoning and proposed use of the parcel to be developed and current zoning and use of all contiguous or abutting property.
 - (5) Subdivision name, block and lot numbers or tax map designations, if not a subdivision, of the parcel to be developed and all adjacent parcels.
 - (6) A vicinity map may be required by the Zoning Administrator if reasonably necessary for review. If required, the vicinity map shall show the location of the proposed development and the relationship of the site to existing community facilities which serve or influence it and shall include the site name, main traffic arteries, schools, parks, scale and North arrow.
 - (7) A boundary survey with an error of closure within the limit of one in 10,000, being drawn to scale with dimensions to the nearest one foot, which shall indicate the acreage of the site.
 - (8) Plan sheets shall indicate city, title, date, scale, North point and number of sheets. Scale shall be one inch equals 50 feet or larger for all plan sheets showing buildings or building lots and at least one inch equals 100 feet on plan sheets not showing buildings or building lots.
 - (9) All building restriction lines, highway setback lines, utility easements, covenants, reservations and rights-of-way on or adjacent to the site.
 - (10) Existing topography on and adjacent to the site as necessary, with a maximum contour interval of two feet.
 - (11) Existing storm drainage systems and natural and artificial watercourses on or adjacent to

the site.

- (12) Limits of any established one-hundred-year floodplain.
- (13) Location of tidal and nontidal wetlands, delineated in accordance with the Federal Manual for Delineating Jurisdictional Wetlands.
- (14) The boundaries of all lands designated Chesapeake Bay Preservation Areas (CBPA) by City Council and delineated on the CBPA maps.
- (15) All existing improvements, including public and privately owned utilities.
- (16) Proposed improvements: the approximate locations, dimensions, elevations, grades, size and heights of the following proposed items may be shown in sketch form:
 - (a) Proposed sidewalks, curb and gutter, streets, alleys, easements and pertinent construction related to the plan of development.
 - (b) Proposed public improvements as may be required by § 286-16.18 of this article.
 - (c) Approximate finished grading with a maximum contour interval of two feet.
 - (d) Buildings and structures, to include, in sketch form:
 - [1] Approximate dimensions of buildings.
 - [2] Proposed building line and side and rear yard setbacks.
 - [3] Distances between buildings.
 - [4] Number of stories and building height.
 - [5] Area in square feet of each floor.
 - [6] Approximate number of dwelling units.
 - [7] Architectural treatment, including graphic description of exterior colors and materials, architectural style and building scale. [Added 5-10-2005 by Ord. No. 05-9]
 - (e) Proposed entrances, exits, off-street parking areas, loading and handicapped spaces, interior drives and walkways, indicating size, angle of stalls, width of aisles and a specific schedule showing the number of parking spaces provided and the number required by this chapter.
 - (f) Proposed public and private sanitary sewer and water systems on and adjacent to the

site.

- (g) Proposed storm drainage systems and stormwater management systems on and adjacent to the site.
- (h) Location, type, size and height of proposed fencing, retaining walls and screen plantings and other landscaping requirements as provided in Article XXVI of this chapter. [Amended 5-13-2003 by Ord. No. 03-5]
- (i) Proposed recreation or open spaces.

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§ 286-16.10. Contents of final plan.

Every final plan of development shall include in final, completed form all requirements of the preliminary plan of development as stated in § 286-16.9A through D of this article. In addition, the following requirements or submissions shall be included:

- A. The horizontal boundaries of the tract to the nearest one-hundredth (.01) of a foot and all bearings in degrees, minutes and seconds to the nearest ten seconds (10"), indicating monuments at all angle points.
- B. Finished grading with a maximum contour interval of two feet, except that where existing ground is on a slope of less than 2%, then one-foot contours or spot elevations shall be provided where necessary. Spot elevations shall be shown at fifty-foot intervals along the edge of existing pavement of streets receiving proposed curb and gutter. The site shall be graded to preclude the puddling of water.
- C. Typical sections showing proposed pavement design, transverse slopes, walkways, cut and fill slopes and dimensions of public streets or required turning lanes.
- D. Soil reports required for pavement and foundation design and other scientific reports as deemed necessary by the City Engineer.
- E. General notes, utility notes and details as promulgated by the City Engineer.
- F. Traffic signing and pavement markings for both temporary construction and permanent applications.

- G. Traffic signal plan, if required.
- H. Public streetlighting plan.
- I. Outdoor lighting within the development, if required.
- J. An erosion and sedimentation control plan in accordance with Chapter 241, Soil Erosion and Sediment Control, of the City Code, including maintenance easements if deemed necessary and appropriate due to the nature of the development.
- K. Requirements of Article XXV of this chapter, Chesapeake Bay Prevention Area Overlay District, including maintenance easements if deemed necessary and appropriate due to the nature of the development.
- L. Environmental assessments and requirements as may be required by this chapter.
- M. A landscape plan with appropriate maintenance arrangements for those portions permitted on City right-of-way, if required. Landscaping plants and materials permitted on City right-of-way shall not hinder vehicular sight distance or pedestrian access.
- N. Facilities for the handicapped.
- O. Irrigation plan with appropriate maintenance arrangements for those portions permitted on City right-of-way, if required.

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§ 286-16.11. Design and construction standards.

All plan of development construction work materials and methods shall conform to the City Design and Construction Standards and Specifications as promulgated by the City Engineer and as are on file in the office of the City Clerk.

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§ 286-16.12. Conformity with applicable codes and regulations.

In addition to the City of Colonial Heights Design and Construction Standards and Specifications, all plans of development shall comply with prevailing laws, ordinances, rules and regulations as they may be applicable. Where any provisions of this article impose restrictions different from those imposed by any other provisions of City ordinances or regulations or other provisions of law, whichever provisions are more restrictive or impose higher standards shall control, unless the intent is clearly otherwise.

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§ 286-16.13. Administrative responsibility and plan of development review by approving authorities.

- A. Generally, the Director of Planning and Community Development shall be responsible for checking the plans of development for general completeness and compliance with adopted plans and such administrative requirements as may be established prior to routing copies thereof to plan reviewing authorities and shall see that all examination and review of the plans are completed by the reviewing authorities.
- B. Specific elements of plans of development which are properly submitted as provided in this article shall be reviewed by:
 - (1) The Director of Planning and Community Development or his agents, relative to compliance with:
 - (a) All applicable requirements of this chapter, proffered conditions or any approved special permit or special exception, to include the supplementary yard requirements of this chapter, including setbacks, side yard and rear yards, heights of buildings, lot area and lot coverage, fencing and screening and adequacy of vehicular parking as to the number of spaces, square footage per space and compliance with other applicable requirements of this article.
 - (b) The performance standards and other applicable provisions and requirements of the historic, wetlands, architectural and CBPA overlay districts of this chapter.
 - (c) Requirements for conditional zoning and planned unit developments.

- (2) The City Engineer or his agents relative to:
 - (a) Compliance with applicable established design criteria and construction standards and specifications for all improvements.
 - (b) Location and design of vehicular and pedestrian access points and entrances and exits from public streets.
 - (c) Design of traffic circulation and control within the site and with adjoining properties.
 - (d) Location and adequacy of automobile parking areas.
 - (e) Adequacy of street design, traffic control and streetlighting.
 - (f) Adequacy of drainage, water supply, fire protection and sanitary sewer facilities.
 - (g) Adequacy of environmental assessments, water quality impact assessments, stormwater management plan, soil erosion and sediment control plan and Chesapeake Bay Preservation Act plan.

C. The above may be used for the purpose of review by:

- (1) The Building Official or his agent relative to the provisions of the applicable building, electrical and plumbing codes, handicapped facilities regulations and compliance with other applicable regulations.
- (2) The Fire Chief or his agent relative to the adequacy of fire protection, emergency access and compliance with the provisions of the local fire code.

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§ 286-16.14. Submission and conditional approval or disapproval of preliminary plan.

- A. The preliminary plan of development shall be submitted to the Zoning Administrator at least two weeks in advance of the next regularly scheduled Planning Commission meeting.
- B. Notification of decision.
 - (1) If disapproved by the Planning Commission, the Zoning Administrator shall express its disapproval and reasons therefor in written form to the developer within two weeks after

the meeting.

- (2) If approved by the Planning Commission, the Zoning Administrator shall express its approval in written form as conditional approval, listing the conditions of the approval. Conditional approval shall be valid for a period of one year from the date of the Planning Commission meeting. The Zoning Administrator may grant an extension of the conditional approval on the basis of a finding that there has been no substantial change in circumstances.
- C. If disapproved by the Planning Commission the developer may appeal to the City Council. Written request for appeal shall be given to the Zoning Administrator within six months of the date of the disapproval by the Planning Commission.

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§ 286-16.15. Limitations on conditional approval.

Conditional approval of the preliminary plan of development shall not constitute approval for construction of the final plan of development. It shall be deemed as an expression of approval of the layout submitted on the preliminary plan of development as a guide to the preparation of the final plan of development. The final plan of development will be submitted for approval as specified in § 286-16.16 of this article.

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§ 286-16.16. Submission and approval or disapproval of final plan of development.

- A. Six copies of the final plan of development and other exhibits required for approval, showing all or any part of a plan of development planned for immediate development, shall be prepared as specified in § 286-16.10 and shall be submitted to the Zoning Administrator.
- B. Upon receipt of the final plan of development, the Zoning Administrator shall distribute the plans to the plan reviewing authorities. Review shall be completed within 30 calendar days after an acceptable plan has been received.

- C. After all conditions and requirements, including bonding, surety, agreements, etc., have been complied with, the plan shall be stamped "Approved for Construction" and signed and dated by the City Engineer. Such approval shall be valid for a period of five years. In the event that it is not so approved, petition may be made to the Planning Commission of the City within six months after receipt of written rejection from the Zoning Administrator. No building permit shall be issued during the appeal process.

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§ 286-16.17. Revisions to approved preliminary plan.

- A. The final plan of development shall conform to the preliminary plan as approved. Minor adjustments of the plan which comply with the spirit of this article and other provisions of this chapter, with the intent of the approving bodies in their approval of plans of development and with the general purpose of the comprehensive plan for development of the area may be approved by the Zoning Administrator with concurrence of the reviewing authorities concerned. Deviation from an approved plan of development without the written approval of the Zoning Administrator shall void the plan, and the applicant shall be required to resubmit a new plan of development for consideration.
- B. Any major revision of an approved plan of development shall be resubmitted to the Planning Commission in the same manner as originally approved; however, minor revisions may be approved by the Zoning Administrator and the City Engineer by written finding as to the specific reasons that such waiver will not be adverse to the purpose of this article.

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§ 286-16.18. Required public improvements.

In furtherance of the purposes of this chapter and specifically to assure the public health, safety and general welfare; to provide for adequate light, air, convenience of access and safety from fire, flood and other dangers; to reduce or prevent congestion in the public streets; to facilitate the creation of a convenient, attractive and harmonious community; to facilitate the provision of

adequate police and fire protection, disaster, evacuation, transportation, water, sewerage, flood protection and other public requirements; to protect against one or more of the following: overcrowding of land, undue density of population in relation to the community facilities existing or available, obstruction of light and air, danger and congestion in travel and transportation or loss of life, health or property from fire, flood, panic or other dangers; to encourage economic development activities that provide desirable employment and enlarge the tax base; and to protect surface water and groundwater quality, the following improvements shall be required, to the extent general or special law permit, for all uses and development to which this article is applicable, and no plan of development shall be approved unless the Planning Commission is assured that the following improvements will be made:

- A. Installation of walkways, traffic signals or modification to existing signals and construction of deceleration lanes, acceleration lanes, left-or right-turn lanes or additional lanes if determined necessary by the City Engineer to maintain the uninterrupted flow of anticipated and/or existing pedestrian and vehicular volumes.
- B. Curb and gutter shall be installed on the side of existing streets on which the plan of development abuts. The existing street shall be widened by the developer between the existing edge of pavement and proposed curb and gutter. Such widening shall be in accordance with the City Design and Construction Standards and Specifications.
- C. Curb and gutter may not be required when:
 - (1) The street abutting the plan of development has been designated by the Planning Commission as not requiring curb and gutter. Widening of the street will be required if determined necessary by the City Engineer to maintain the uninterrupted flow of anticipated or existing traffic volumes according to the City Design and Construction Standards and Specifications.
 - (2) In the opinion of the City Engineer, the construction of curb and gutter adjacent to the plan of development at that time would not be in the best interests of the City due to unusual existing topography or drainage conditions. In this event, the developer shall deposit into a special account with the City Treasurer an amount equal to the installed cost of the curb and gutter. Funds from this account shall accrue for future use at such time as curb and gutter are recommended for that site.
- D. Off-site improvements needed to serve the development with water and sanitary sewer, storm sewers or other improvements which will become a part of the City system. These improvements shall be routed so as to make future connection to adjacent properties accessible.
- E. An adequate street lighting system.

- F. Additional right-of-way or utility easements as required shall be dedicated to the City of Colonial Heights by separate plat.

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§ 286-16.19. Developer to bear cost of improvements.

All required public improvements shall be installed by the developer at his own cost.

CODE OF THE CITY OF COLONIAL HEIGHTS, VIRGINIA, v42 Updated 07-01-2010 / PART II GENERAL LEGISLATION / Chapter 286, ZONING / ARTICLE IA, Plan of Development [Added 6-9-1992 by Ord. No. 92-6] / § 286-16.20. Assurance of public improvement construction; exception.

§ 286-16.20. Assurance of public improvement construction; exception.

- A. Prior to approval of the final plan of development, the developer shall submit to the Zoning Administrator a performance and maintenance agreement, accompanied by a surety bond, letter of credit or cash escrow covering 100% of the cost of the required public improvements and guaranteeing the maintenance thereof for 12 months after acceptance of the improvements by the City Engineer. Such bond, letter of credit or escrow agreement shall be approved as to form by the City Attorney and approved as to amount by the City Engineer. The amount of the maintenance guaranty shall be 10% of the total cost of the public improvements.
- B. Final plans of development having an aggregate estimated cost for required public improvements of less than \$5,000 shall be exempt from the bonding requirements stated in Subsection A above. The developer shall agree, however, to guarantee the maintenance of the required public improvements for a period of one year from the date of acceptance by the City Engineer.

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§ 286-16.21. Indemnification of city.

The developer shall agree to indemnify, protect and save harmless the City of Colonial Heights for bodily injury or death to persons which may arise out of or be caused by the construction, maintenance, presence or use of the required public improvements and public easements located within the proposed site until the required public improvements and easements shall be accepted by the City. Evidence of public liability insurance, including a governmental endorsement thereto, issued by a company licensed to do business in the Commonwealth of Virginia shall accompany the final plan of development and be approved in form by the City Attorney.

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§ 286-16.22. Inspection and supervision.

- A. Inspections shall be made by the plan reviewing authorities or their agents, both on site and off site, to ensure general conformance of the construction with the requirements of the approved final plan of development.
- B. The developer shall provide adequate supervision on the site during the installation of all required improvements and shall have a responsible superintendent or foreman, together with one set of approved plans and specifications, available at the site at all times when work is being performed.
- C. Upon completion of the project, the developer shall request that a final inspection be made by the City Engineer. When all noted deficiencies have been satisfactorily corrected, the City Engineer shall accept the required public improvements.

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§ 286-16.23. Stop-work order.

- A. In the event that inspection reveals that the construction of improvements does not conform to the requirements of the approved plan of development or it is found that unapproved materials or substandard workmanship are being used or it is found in the opinion of the City

Engineer or other plan reviewing authority that a hazard to public safety exists, the Zoning Administrator or his agent, acting on behalf of the City Engineer or other plan reviewing authority, shall stop the work from proceeding and shall require that any public safety hazard or noncompliance be immediately remedied.

- B. The Zoning Administrator shall provide written directions to stop work both on site and off site which shall be hand carried or mailed by certified letter to either the developer or his superintendent.

Endnotes

1 (Popup - Popup)

Editor's Note: See now Code of Virginia, § 15.2-2204.

2 (Popup - Popup)

Editor's Note: See now Code of Virginia, § 15.2-2286, provision 8.

Department of Public Works Construction Plan Review Checklist

Plan Name: _____

Date: _____ Reviewed By: _____

Engineer understands that any changes made to the road, drainage, water and/or waste water design will require a submittal to the Department of Public Works for review and approval of the revised plans reflecting those changes.

All revisions must include an explanation either on the plans or by separate transmittal.

Plan Format:

Plans for roads, utilities, drainage, and erosion control shall be submitted to the Department of Public Works (6 sets, including sewer and water line profiles). All plans must be folded and bundled accordingly. Include separate agency transmittals for PUBLIC WORKS (3), PLANNING (1), FIRE (1), and MAINTENANCE & OPERATIONS (1). Plans will not be processed nor forwarded unless 2 copies of the approved preliminary plan are included in the initial submittal package for the Department of Public Works. If sectioning is desired, each section must be submitted as a separate plan package and bundled accordingly.

Program Administration:

The fee must accompany the initial plans submission and is processed at the front counter.

The following information (where applicable) is to be provided or considered on all plans submitted for review.

Cover Sheet, must be Standard City Cover Sheet with all applicable information completed:

- ____ 1. Plan name and section designation, where applicable
- ____ 2. Zoning case number and Council approval date (provide a copy of the approved resolution)
- ____ 3. Preliminary case number and approval date (provide a copy of the approval letter)
- ____ 4. Name of Developer/Owner, Walk-in Address, Telephone Number, and Email address.
- ____ 5. Date
- ____ 6. Engineer and/or Surveyor, Address, signed certification stamp, Telephone number and Email address.
- ____ 7. Vicinity Sketch showing existing road names.

- ___ 8. Provide note stating how CBPA compliance has been achieved for the project
- ___ 9. Complete Sheet index
- ___ 10. Property Tax ID/GPIN/Parcel #'s
- ___ 11. Certification statement of the lot numbers, block letters/numbers and road names, etc.

ADDITIONAL COMMENTS:

Detail Sheet(s) must include the Standard City Detail Sheet and shall contain the following information at a minimum:

- ___ 1. Show details of all proposed structures for which there is no standard drawing or modification of standards drawn to scale. Examples would be channel cross-sections, typical road cross-sections, sidewalk sections, etc.
- ___ 2. If a VDOT standard is modified, detail must be shown with all applicable dimensions drawn to scale.
- ___ 3. List all construction notes necessary to complete the work.
- ___ 4. Number assigned to structure shall be shown with detail.

ADDITIONAL COMMENTS:

Utility Detail Sheet(s) must include the Standard City Utility Note and Detail Sheet and shall contain the following information at a minimum:

- ___ 1. Show details of all proposed utilities. Examples would be manholes, meter vaults, fire hydrants, etc.
- ___ 2. If a standard detail is modified, the detail must be shown with all applicable dimensions drawn to scale.
- ___ 3. List all construction notes necessary to complete the work.
- ___ 4. Number assigned to each utility shall be shown with detail.

ADDITIONAL COMMENTS:

Erosion Control Detail Sheet(s) must include the Standard City E&S Note and Detail Sheet and shall contain the following information at a minimum:

____ 1. Are details with applicable information provided on the detail sheet for every EC measure specified.

____ 2. If a standard detail is modified, the detail must be shown with all applicable dimensions drawn to scale.

____ 3. List all construction notes necessary to complete the work.

____ 4. Has the temporary silt trap/sediment basin schedule been completed on the applicable EC Detail sheet with volumes and dimensions (length, width, depth, and side slopes).

____ 5. A note must be added to the plans as follows: "All vegetative and structural erosion and sediment control practices will be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook and Virginia Regulation VR 625-02-00."

ADDITIONAL COMMENTS:

Erosion Control:

____ 1. A note must be added to the construction sequence which requires the owner to give the City inspector 48 hours notification to schedule an on-site pre-construction meeting for the issuance of a Land Disturbance Permit. This note should be the first step in the erosion control narrative/sequence of construction.

____ 2. The following note(s) must be added to or adjacent to the erosion control narrative / sequence of construction: (If applicable)

-All offsite easements must be recorded prior to issuance of a land disturbance permit for this project.

-All onsite easements, including SWM/BMP maintenance easements must be recorded prior to issuance of a certificate of occupancy for this project.

- The SWM/BMP facility must be certified by a professional engineer prior to issuance of any certificate of occupancy.
- A ROW permit is required for this project prior to issuance of a land disturbance permit.
- At the time of the pre-construction meeting, two standard signs must be installed on each side of the construction access. These signs may be installed on tripod devices and should state either “CONSTRUCTION ENTRANCE AHEAD” or “TRUCKS ENTERING HIGHWAY”.
- The riser and pipe barrel associated with the sediment basin must be on-site prior to issuance of a land disturbance permit.

___ 3. An erosion and sediment control narrative is required which includes a detailed sequence of construction which coordinates the installation and removal of the erosion and sediment control measures with construction of the remainder of the project.

___ a. Has the construction narrative been shown on the EC plan, not elsewhere.

___ 4. Has a commentary been provided that addresses the sensitive areas (RPA’s, wetlands, steep slopes, etc.) and erodible soil types.

___ 5. Steps must be included in the sequence of construction for the installation of utilities, storm sewer, drop inlets, inlet protection, curb & gutter, and building construction, etc.

___ 6. Erosion control measures must be provided for the project for the initial clearing, grubbing, and grading operations. The drainage areas must be outlined and the sediment trapping facilities designed on the worst case scenario.

___ 7. Have the clearing limits been restricted to only those necessary to install the perimeter EC measures-SF, DD, ST’s, SB’s, and stockpile area.

___ 8. Provisions must be made in the narrative to allow all proposed sediment traps and basins to remain in place until all on-site contributing areas are stabilized.

___ 9. Provisions must be made in the erosion control narrative for conversion of the sediment basin into a SWM/BMP facility after the upstream areas are fully stabilized.

___ 10. Provisions must be made in the erosion control narrative for the infiltration facility to be observed by a professional engineer during construction. "As built" information will be required for future certification of the facility.

___ 11. Standard symbols must be used to represent erosion control measures on the plan. Please refer to the first page of the practice found in Chapter iii of the Virginia Erosion and Sediment Control Handbook.

___ 12. Does the EC plan ghost such features as ROW, property lines, centerline stationing, street names, lot numbers such that the EC measures and related activity “standout” in the plans.

___ 13. The exact limits of land disturbance must be shown.

___ 14. The construction entrance (CE) must be graphically shown on the plans and constructed as wide as the proposed permanent entrance.

___ a. Is there enough concern to require a wash rack on the construction entrance.

___ 1. If a wash rack is required, add the following note in **bold print**:
“Installation of a wash rack is required for this site to wash mud and debris from all construction equipment and vehicles prior to leaving the construction area. Water trucks must be provided for the wash rack. Positive drainage must be maintained from the wash rack to a sediment trapping device.”

___ 15. Any soil stockpile area must be located on the plans. Silt fence must be provided around the perimeter if it is located outside the perimeter erosion controls for the site.

___ 16. A minimum 10' break must be provided in the low area of the silt fence. The break must be backfilled with stone to within 1' of the top of the silt fence to serve as an overflow. A detail must be shown.

___ 17. Safety fence (STD. & SPEC 3.01) is required around all sediment traps and sediment basins.

___ 18. The sediment basin(s) must be designed in accordance with STD. & SPEC. 3.14 of the VESCH. Sediment basin design calculation sheets must be submitted with all design data addressed and shown on construction details included on the plans.

___ a. Does the EC plan provide a 1' contoured grading plan for the construction of the sediment basin(s).

___ 1. Provide trash rack detail with dimensions.

___ 2. Provide Sediment Basin dam section with elevations and dimensions.

___ 3. Provide emergency spillway detail with dimensions.

___ 4. Provide reclamation grading plan for removal of the sediment basin.

___ 19. The culverts downstream of the detention basin(s) must be analyzed for adequacy based on the 10-year storm. Existing inadequate culverts in city easements and under city or state roads, into which a project drains, must be enlarged or on-site detention based on the ultimate development of the contributing watershed provided to achieve minimum 10 year performance of the pipe(s). A drainage area map must be provided for both on-site and off-site drainage areas.

___ 20. Are temporary slope drains specified to convey sediment laden runoff from the road templates over the fill slopes exceeding 5' in height.

___ 21. Has an itemized Cost Estimate been submitted for approval of bond amount.

___ 22. Have MS-19 calculations with field-taken sections (H=V) been submitted for on-site/off-site receiving facilities.

___ a. 2-yr analysis for natural

___ b. 10-yr analysis for manmade

___ c. Does section location satisfy 1% rule.

___ d. Are section locations shown/labeled.

Prior to issuance of Land Disturbance Permit:

___ 1. Received Planning, Fire, Building Inspection, and M&O approvals prior to Department of Public Works plan approval.

___ 2. Received documentation from COE/DEQ.

___ 3. Received processed VSMP registration and fee form.

___ 4. ROW Permit is required for this project

___ 5. Provided DB-PG of all off-site easements.

___ 6. EC bond posted.

___ 7. Engineer and/or Surveyor has notified all property owners prior to performing any design and/or surveying work (copy of such notification is attached). Permission must be obtained from the adjacent property owner(s) allowing for grading on the property as proposed.

___ 8. Performance bond with estimated completion date.

___ 9. Development Forms.

Prior to issuance of certificate of occupancy:

___ 1. Two (2) complete sets of As-Built construction plans

___ 2. A CD/DVD, the format of which shall be AutoCAD.dwg or dxf, must be submitted to Stephen Edwards of the Department of Public Works. The CD/DVD must contain the following (including all field changes), each in a separate layer:

- a. Final grading contour lines (min. 5' intervals);
- b. Proposed building footprint(s);
- c. All impervious area (parking lots, driveways, roads, etc);
- d. All existing and proposed easements;
- e. The storm sewer system; and
- f. Water and waste water systems.

A layer report printed from AutoCAD must be submitted with the CD/DVD. Both the CD/DVD and the report must be labeled with the plan name, plan number, and the engineering firm. All AutoCAD files must be referenced directly to the Virginia State Plane Coordinate system, South Zone, in the NAD83 Datum.

___ 3. All onsite easements must be recorded, provide deed book/page number.

ADDITIONAL COMMENTS:

Chesapeake Bay Preservation Act:

___ 1. A perennial flow determination must be submitted for review and/or approval prior to construction plan approval.

___ 2. Confirm Worksheet A (pollutant removal requirements) calculations approved.

- ___ 3. A data map must be submitted which outlines all drainage areas, impervious areas (existing and proposed), RPA and RMA limits, etc. Which were utilized in determining compliance with the Chesapeake Bay Preservation Ordinance:
- ___ 4. Have BMP design calculations been submitted.
- ___ a. Volumes where depths exceed 8' (entire water column) excluded from water quality volume.
- ___ 5. Provide separate BMP grading plan on 1" = 20' scale.
- ___ a. Specify the 2, 10, and 100 year water surface elevations (WSE) in plan and profile.
 - ___ b. Clearly show and label the total drainage area for the SWM/BMP.
 - ___ c. Provide minimum 3:1 length to width ratio across bottom of basin per E&SC Manual.
 - ___ d. Provide a scaled centerline profile of the pond and embankment with applicable elevations, slopes, widths, etc.
 - ___ e. Provide enlarged scaled principal/emergency spillway detail with applicable elevations, dimensions, material, etc.
 - ___ f. Does principal concrete spillway provide 10-yr capacity.
 - ___ g. Have sediment forebay(s) been provided at major inflow points.
 - ___ h. Forebay dimensions should not exceed 20' due to cleanout limitations.
 - ___ i. Emergency spillway may be grass or riprap lined in natural ground or paved in fill to 100-yr depth.
 - ___ j. Does wet pond range in depth from 3' to 8'.
 - ___ k. Top of dam shall provide minimum 1' freeboard above 100 year WSE.
 - ___ l. Top of dam width minimum 8' and slopes 3:1 or flatter for maintenance.
 - ___ m. Does dam embankment section specify an impermeable clay core keyed into impermeable subgrade.
 - ___ n. Provide 12" valve/12" pipe with elbow off the bottom to lower pond for maintenance.
 - ___ o. O-ring RCP pipe shall be used for barrels/risers.
 - ___ p. Inflow pipes shall be partially submerged to the spring line (half the pipe diameter).

- ___ q. A sluice gate must be provided to facilitate draining the BMP for maintenance.
 - ___ r. Riser and pipe barrels no smaller than 15”.
 - ___ s. Perforations in the riser must be precast, not field made. Add a note to the riser detail.
 - ___ t. Plastic Trash rack specified and a dimensioned detail provided that shows the method of securing the plastic trash rack/anti-vortex device to the concrete riser pipe.
 - ___ u. The required storage volumes for water quality and water quantity must be shown on the profile view of the basin.
- ___ 6. Has a SWM/BMP maintenance and access easement been shown enclosing entire facility and embankment/outfall.
- ___ a. Established 25’ off 100-yr WSE or toe of dam.
 - ___ b. Provided minimum 20’ wide access easement to ROW.
 - ___ c. Provided minimum 12’ wide, 6” base stone access road design & detail.
 - ___ d. A minimum 12’ wide ramp must be provided from the access gate to the bottom of the SWM/BMP facility. The slope cannot exceed 6:1.
- ___ 7. SWM/BMP safety measures required for slopes steeper than 6:1, 20’ from the shoreline.
- ___ a. When concrete weir depth exceeds 3’, a pedestrian crossing structure shall be constructed across the weir.
 - ___ b. For basins 4’ or less in depth and < 1 acre surface area a safety bench is required.
 - ___ c. For basins greater than 4’ in depth or more than 1 acre surface area, both safety and aquatic benches are required.
 - ___ d. Is safety bench 10’ wide at 10:1 slope
 - ___ e. Is aquatic bench 6’ wide at 6:1 slope
 - ___ f. Fencing around basin alternative to safety/aquatic benches - minimum height of fence 6’.
- ___ 8. Has 10’ vegetative perimeter yard setback measured from 100-yr WSE or the toe of dam been shown/dimensioned. (must be within limits of project)

___ 9. Dimension/Label the "100' RPA Buffer Area" landward of wetlands contiguous to perennial streams to establish limits of the RPA.

___ 10. Are minor/major Water Quality Impact Assessments required.

___ a. Minor < 2500 Sq. ft.

___ b. Major > 2500 Sq. ft.

___ 11. If infiltration trenches are specified:

___ a. Several soil borings must be made within the limits of the infiltration trench to a depth of at least five feet below the bottom of the trench. A percolation test must be performed to determine if the infiltration rate of this soil is acceptable.

___ b. A minimum of two observation wells are required for the infiltration trench.

___ 12. Due to the high possibility for spills of oil, gas, anti-freeze, etc.

___ a. Does an oil-grit separator need to be installed. Design calculations must be submitted and details provided on the plans for its construction.

___ b. Does an "off-line" sand filter need to be installed. Design calculations must be submitted and details provided on the plans for its construction

___ 13. The facility certification process shall be performed by an engineering/surveying professional at the owner's expense.

ADDITIONAL COMMENTS:

Plan Sheet(s) shall contain the following information:

___ 1. Indicate all proposed and existing rights-of-way widths, all lot lines, all lots with numbers, easements (including DB/PG#), all street names and existing State route numbers if applicable. Stipple all areas proposed to be paved.

___ 2. Adjacent property owners name(s), GPIN's/Tax ID's and lot lines must be shown.

- ___ 3. Show complete street curve data on the plan sheets to include the following stationing (PC, & PT), L, K, A, R, Delta, Chord Distance, and Chord Bearing.
- ___ 4. Indicate centerline stations at 100' intervals and at all other strategic points, i.e. drainage structuring, etc. and intersection of streets.
- ___ a. Does stationing ascend from left to right.
- ___ 5. When proposed and existing streets intersect, indicate existing conditions for 600 feet in each direction. This is to include width of pavement, right of way, location and direction of roadside drainage, any culverts to include inverts, etc.
- ___ 6. Indicate proposed driveway entrance culvert size (10-year), length, and location. (if applicable)
- ___ 7. Indicate all proposed and existing storm sewers, culverts and appurtenances, identify by type, size, slot length, material, inverts.
- ___ a. Every inlet and segment of storm sewer shall be assigned a structure number. A drainage structure description shall be provided as applicable on each respective plan sheet.
- ___ 8. Indicate, with arrows, the direction of flow in all gutters, storm sewers, ditches, subsurface drains, streams, minimum finished floors, etc.
- ___ 9. Indicate all existing and proposed ditches and streams and any relocations showing longitudinal slope, and furnish detailed typical section showing type of stabilization to be provided and maximum and minimum vertical depth.
- ___ 10. Indicate direction of North on each sheet.
- ___ 11. Indicate location and description of all benchmarks and their elevation referenced to mean sea level. Two (2) benchmarks must be shown on the proposed plan and at least one (1) of the benchmarks must be shown within the limits of the proposed plan.
- ___ 12. Indicate location of any City control monuments within vicinity.
- ___ 13. Plans shall be to a scale of 1"=50' (Maximum)
- ___ 14. Any notes that may be necessary to explain the intent and purpose of the plans.
- ___ 15. Indicate the location and width of all proposed and existing sidewalks and walkways.
- ___ 16. Show/label all USACOE wetlands, WOUS, 100-yr F/P, BW, RPA's.

___17. Dimension 10' building setback off the 100-yr F/P, 100-yr BW, wetlands/WOUS and RPA, whichever is most restrictive.

___18. Show Dimensioned Building Envelopes (DBE) where critical, as determined by the Department of Public Works.

___19. Indicate proposed and existing lakes and ponds on-site and in vicinity of projects. (NOTE: Separate detailed plans are to be submitted for all such structures).

___20. Easements (in Plan View) must be stationed in such a manner as to coordinate with profiles.

___21. Match lines must be shown with any overlap distinguished by dotting such overlap.

___22. Cut and fill construction limits must be shown.

___23. Table of Estimated Quantities (including breakdown for stone, asphalt, C&G, sidewalk, drainage pipe, etc.).

ADDITIONAL COMMENTS:

Design Requirements:

___ 1. Have zoning conditions been satisfactorily addressed in construction plans.

___ 2. Have preliminary plan conditions been satisfactorily addressed in the construction plans.

___ a. Does the construction plan road/lot/site layout and RPA limits match the approved preliminary plan.

___ 3. Has a site inspection been made to “field truth” existing conditions as shown in the construction plans.

___ a. Do road beds or other features exist which should be graded/restored to surrounding ground elevation.

___ 1. Earmark lots with NBP

___ 4. Are natural drainage ways (unencumbered by wetlands/WOUS) adequate conveyance systems which should have 10' Building Setback Limit (BSL) dimensioned.

___ a. Specify that they are to remain in a natural state undisturbed.

- ___ 5. Does existing drainage flow pattern conflict with building envelope.
- ___ a. Has a contoured grading and drainage plan been provided.
 - ___ b. Earmark site or lots with NBP_(grading)
 - ___ c. Dimension a Building Envelope 10' off the top of bank of drainage way.
- ___ 6. Has an approvable road design for sag conditions per VDOT Standards been provided a minimum 300' into adjacent property/future sections in plan and profile.
- ___ a. Utility Easements and Temporary Construction Easement's (TCE's) for fill slopes outside ROW.
- ___ 7. Are utility easements and/or improvements necessary to guarantee upstream off-site areas a permanent conveyance thru on-site development.
- ___ 8. Are proposed road fill slopes beyond the limits of ROW enclosed in utility easements.
- ___ a. Minimum 10' TCE's within lots adjacent to future road extensions.
- ___ 9. Top of curb elevations must be shown at the nose of all radial curb and at all appreciable breaks in horizontal or vertical alignment.
- ___ a. The radius of all radial curbing must be shown
- ___ 10. Dry gutter is required where runoff flows away from the face of curb. These areas must be cross-hatched and a detail provided on the plan for construction of dry gutter. Dry Gutter is **not allowed** within City ROW.
- ___ a. The symbol used for dry gutter in plan view must be shown on or adjacent to the detail for its construction.
- ___ 11. A detail must be shown on the plan which demonstrates the ability to obtain a minimum of 2' of horizontal backfill behind the curbing and drop inlets prior to beginning a back slope which cannot exceed 3:1 without encroaching onto any adjacent property. The detail must be to scale.
- ___ 12. The finished floor elevation of all structures must be shown.
- ___ 13. Bituminous curbing (Std. MC-3A) is required along the edge of pavement separating different phases of the project.
- ___ 14. A pavement design is required for all paved areas.

___ 15. Does lot drainage cross more than 2 lots. If so, generally follow the guidelines below:

___ a. Specify grass side yard swales (5:1 SS @ 12" depth) minimum 1% slope including a profile or spot flow line elevations.

___ b. Dimension side yard swale 5' off the property line on the upstream side of downstream lot.

___ c. Grass yard swales across multiple lots to be enclosed in minimum 16' utility easement to ensure permanent conveyance.

___ d. Earmark lots requiring grass side yard swales with NBP (No Building Permit)

___ e. Provide a 6" vertical opening with a 2' concrete gutter in the back of DI's within the ROW where available to intercept side yard swales.

___ 16. To assure positive lot drainage, do Minimum Crawl Space Elevations (MCSE) need to be specified a minimum 1' above original ground.

___ a. Provide typical MCSE detail.

___ 17. Do the 100-yr calculations submitted show that the backwater elevation is at or below the 100-yr floodplain upstream/offsite.

___ a. If the proposed 100-yr elevation is higher, a 100-yr backwater easement or revised floodplain limits must be recorded.

___ 18. Does proposed grading activity establish limits of 100-yr floodplain or backwater.

___ a. Has filling in the 100-yr FP to achieve a building envelope been proposed – **it is prohibited.**

___ b. Have the 100-yr FP limits been shown to verify that proposed filling is only to enlarge building envelopes, by separate submittal.

___ c. Limits must be certified by a licensed professional prior to the release of the Building Permit and so stated in the plans.

___ 19. Could proposed building envelopes be impacted by a dam failure during the 100-yr storm event.

___ a. Specify MFF(DF) elevation 1' above dam failure.

___ b. Show Dimensioned Building Envelope (DBE) outside dam failure limits.

Parking spaces, handicapped requirements and Entrances:

- ___ 1. Have all CG-12 handicapped ramps been shown with truncated domes (yellow)
- ___ 2. Have handicapped ramps been shown at all intersections and entrances to proposed commercial buildings.
- ___ 3. Have sidewalks/ramps been shown adjacent to proposed handicapped parking spaces.
- ___ 4. The minimum dimensions for 60 degree angled parking spaces must be 19' x 9' (TYP).
- ___ 5. The minimum dimensions for 90 deg parking spaces must be 18' x 9' (TYP)
- ___ 6. The min. dimensions for handicapped parking spaces must be 18' x 8' (TYP)
- ___ 7. Have the adequate number of handicapped parking spaces been provided.
- ___ 8. Have at least one van accessible sign and space been provided.
- ___ 9. Have the dimensions for the dumpster pad been shown along with required screening (fencing)
- ___ 10. Have bumper blocks been provided on all parking spaces that are directly adjacent to sidewalks.
 - ___ a. If bumper blocks are not provided, then a minimum 2' grass strip must be added between the curb and sidewalk, or the width of the proposed sidewalk must be increased to 7'.
- ___ 11. Have sidewalks been shown connecting parking lots or adjoining sites.
- ___ 12. Are shared entrances shown with ingress/egress easements to adjoining sites.
- ___ 13. Fencing shown on the plans above proposed/existing retaining wall higher than 30" above ground elevation must provide fencing detail. Coordinate the type of fencing and all code requirements with Bernie Murrell, Building Official at 804-520-9298.
- ___ 14. The maximum allowable grade for a subdivision/commercial entrance in the first 25 feet, starting 14' back from EP on intersecting road, should be no more than 3%.
 - ___ a. The maximum allowable grade for the next 40 feet should be no more than 6%.

ADDITIONAL COMMENTS:

Profile Sheet(s) shall contain the following information:

- ___ 1. Existing centerline profiles and stations must be shown on all proposed streets, storm sewers, stream relocations, outfall ditches (to existing streams, and on drainage ditches to include location and elevation of utility crossings).
- ___ 2. Offset profiles of existing ground should be shown to the right and left of centerline at the right of way line – include legend.
- ___ 3. The finished grade line of all streets must show and include:
 - ___ a. Show complete street curve data to include the following stationing (VPC, VPI, VPT), elevations (VPC, VPI, VPT), L, K, A, R, Delta, Chord Distance, and Chord Bearing.
 - ___ b. Percent of grade
- ___ 4. Stations shown on profile must agree with stations shown on plan. Stations must progress in the same direction on both plan and profile.
 - ___ a. Does stationing ascend from left to right.
- ___ 5. When proposed and existing streets intersect, indicate existing conditions for 600 feet in each direction. This is to include location and direction of roadside drainage, any culverts to include inverts, etc.
- ___ 6. Show existing/proposed profiles 300 feet beyond construction limits of roads that stub into adjacent properties or future sections.
- ___ 7. Show proposed culverts and/or storm sewer crossings at the proper location and grade.
- ___ 8. Each storm sewer system should be shown in its entirety to include, at a minimum, the following information: (including Structure number)
 - ___ a. Percent of grade and length
 - ___ b. Size and material
 - ___ c. Show catch basins, inlets, etc. with proposed elevation for tops and inverts.
 - ___ d. Show existing and proposed ground surface over centerline of system.

- ____ e. Existing/Proposed utilities passing perpendicular to the system or sharing a common easement (to include outer elevation)
- ____ 9. Open channels must include, at a minimum, the following:
 - ____ a. Percent of grade
 - ____ b. Centerline profile
 - ____ c. Existing ground profiles at centerline and easement edge.
 - ____ d. Typical section showing 10-year design depth, side slopes, lining, and pertinent hydraulic data.
- ____ 10. Provide a legend for existing and proposed structures, existing and proposed ground and pavement profile, other utilities, etc.

ADDITIONAL COMMENTS:

Utility Plan Sheet(s) shall contain the following information:

- ____ 1. The utility plan must include an overall plan of the water and waste water layout, including any phasing of the development.
- ____ 2. Indicate all proposed and existing rights-of-way widths, all property lines and property markers (stones, rods, pins, pipes, monuments, etc.), proper labeling of subdivisions (lot numbers, block, subdivision boundaries, etc.), easements (including DB/PG#), all street names, and existing State route numbers, if applicable.
- ____ 3. Adjacent property owners names, GPIN's/Tax ID's and lot lines must be shown.
- ____ 4. Have municipal, subdivision and/or drainage area boundaries been shown.
- ____ 5. Indicate the location and width of all proposed and existing sidewalks and entrances.
- ____ 6. Indicate centerline stations at 100' intervals and at all other strategic points, i.e. drainage structuring, utilities, etc. and intersection of streets.
 - ____ a. Does stationing ascend from left to right.
- ____ 7. Match lines must be shown with any overlap distinguished by dotting such overlap.
- ____ 8. Indicate direction of North on each sheet.

- ___ 9. Indicate with arrows, the direction of flow in utilities, subsurface drains, streams, minimum finished floors, etc.
- ___ 10. The horizontal and vertical scale must be shown on each sheet (the scale should be the same on plan and profile)
- ___ a. Vertical scale should be 1" = 5' or 1" = 10'
 - ___ b. Horizontal scale must be 1"=50'.
- ___ 11. Scaled drawings must be accurate to within +/- 2% for vertical and horizontal scales.
- ___ 12. Easements must be stationed in such a manner as to coordinate with profiles.
- ___ 13. Are existing water and/or wastewater lines properly labeled with size.
- ___ a. Are horizontal and vertical distances referenced on the plan.
 - ___ b. Are reference distances from right of way, boundaries, buildings, other utility lines, etc. shown.
- ___ 14. Is the alignment of utilities in the right of way consistent with City guidelines.
- ___ a. Have the lines been shown 4' from face of curb or 2' off pavement where there is a ditch.
- ___ 15. Do all water and waste water designs conform to the latest City, State and Federal regulations or standards. (at a minimum, reference has been made to City Standard specifications and details)
- ___ 16. When proposed and existing streets intersect, indicate existing conditions for 600 feet in each direction. This is to include width of pavement, right of way, any culverts to include inverts, utilities, etc.
- ___ 17. Are the locations of existing homes, buildings, fences, wells and other structures shown on the plans. In lawn or kept areas, trees and shrubs in the easements are shown (size and type).
- ___ 18. Have detailed drawings been provided for all stream crossings and storm sewer outlets, with elevations of the stream bed, the 100 year flood elevation, and normal water elevation shown/labeled.
- ___ 19. Have pavement boring details, etc. been shown on the plans.
- ___ 20. Have plans been submitted to State Health Department for review and approval where applicable. A copy of transmittal letter and approval must be provided.

___ 21. Show all cut and fill areas within the limits of the existing and proposed waste water and/or water lines.

___ 22. Has a Table of Estimated Quantities been provided (including breakdown of types of pipe).

___ 23. Are any adjacent road, drainage, and/or utility projects shown - **REQUIRED**.

___ 24. Has consideration been given to areas where roads and drainage structures may be lowered in the future.

___ 25. If a horizontal bore is shown, provide the following information, bore location, length of bore, pit location (average 8' x 35'). Information must be shown in relation to all existing and/or proposed utilities on plan and profile.

___ 26. Are the locations of special features (concrete encasement, riprap stabilization at creek crossings, clay dams, etc.) shown on the plans.

___ 27. Have the necessary easement plats on-site and/or off-site been submitted for processing. Plats concur with Exhibit A at the end of checklist.

ADDITIONAL COMMENTS:

Utility Plan-Design Requirements:

___ 1. Have zoning conditions been satisfactorily addressed in the construction plans.

___ 2. Have preliminary plan conditions been satisfactorily addressed in the construction plans.

___ 3. Have existing and proposed storm sewer lines, gas, telephone, power, and other utility lines, which cross or run parallel to the waste water or water lines, been shown with exact horizontal and vertical separations given. Subsurface exploration must be performed where potential conflicts exist, where applicable.

___ 4. Does the plan show all fire hydrants, meter settings, blow-offs, manholes, tees, bends, valves, reducers, etc. Has each appurtenance been properly labeled, including pipe sizes.

___ a. The location of fire hydrants will be coordinated with the Fire Department by the Department of Public Works. Fire hydrant locations must comply with design guidelines.

___ 5. Have waste water pipes, manholes, clean-outs, tees, bends, grinder pumps, flushing connections, etc. been labeled with size, grade, length, direction of flow, and type & class of pipes (with backup calculations on the type & class pipe needed, where applicable).

___ 6. Have solid lines been used to show proposed water and waste water, short dashed lines to show existing water and waste water and labeled future water and waste water or portions covered under other phases of construction.

___ 7. Indicate the location and dimensions of all water and waster water service connections.

___ 8. Have conflicts with storm sewers and other utility lines been shown with appropriate design changes.

___ a. Are ditch lines shown on the plan.

___ b. Have temporary and/or permanent silt basins been shown.

___ 1. Have the waste water lines and manholes been designed around these structures.

___ 9. Have water line/waste water stubs for future extensions been designed to be installed beyond the edge of pavement.

___ 10. Have calculations been checked for accuracy.

___ 11. Do clay dams or other acceptable designs need to be shown at appropriate locations to avoid water from creeks and/or lakes being diverted along pipe bedding.

___ 12. Received confirmation that the engineer has contacted Virginia Power/Columbia Gas/Verizon/etc. to obtain exact location of utility lines and received as-built information.

ADDITIONAL COMMENTS:

Water:

- ___ 1. Has the water system been designed in accordance with available pressures/
have fire flow and pressure calculations been provided, in accordance with
Appendix 14.
- ___ 2. Have water services been shown in accordance with the design standards.
 - ___ a. Are water meter boxes shown at the edge of the right of way, outside of
non-vehicular traveled areas. Where it is not possible to locate the boxes out of
the driveways, and/or vehicular traveled area, a cast iron box is specified.
- ___ 3. Does the plan show all connections to existing subdivision mains, etc.
 - ___ a. For water line tie-ins, the plans must show the valve to be used for cut off
during the tie-in.
- ___ 4. Have fire hydrants and air relief valves been shown on plan and profile.
 - ___ a. Have hydrants or blow-off valves been designed at major low places in
the line where possible
 - ___ b. Have air release valves been designed at high points in the line where
possible.
 - ___ c. Have blow off devices (flushing hydrants) or hydrants been designed at
the end of all lines in cul-de-sacs.
 - ___ 1. Locations of hydrants must comply with guidelines outlined in
design standards.
- ___ 5. Knockdown meter box shall not be located within any travel areas.

ADDITIONAL COMMENTS:

Waste Water:

- ___ 1. Has a sewerage drainage area map with hydraulic analysis been included in
plans.
- ___ 2. Have minimum finished floor elevations and basement elevations been shown on
plans, where applicable.

___ 3. Received confirmation that the engineer has field verified the inverts of the existing manhole(s). Where invert elevations are different from the as-built plans, the engineer has verified his survey work and notified the Department of Public Works of the discrepancy.

___ 4. Have manholes been labeled with top and invert elevations; coordinates; and locations, size and inverts of drop stacks.

___ a. Have manholes been designed to an elevation above the 100 year flood plain elevation as set forth in the design standards.

___ b. Have deflection angles at all manholes or bearings of all lines been shown and labeled on the plans.

___ 5. Have manholes in easements been referenced.

___ 6. Does ground coverage over waste water pipes meet minimum criteria.

___ 7. Are there buildings where the finished floor elevation of the building is below the top elevation of the nearest upgrade manhole from the building connection, as well as on any irrigation meter.

___ a. Provide notation that a backwater/check valve is to be used at each location.

___ 8. Has a minimum of ten (10) feet horizontal separation been maintained between waste water lines, waste water laterals and water meters or water blow off devices (flushing hydrants) and between waste water lines and storm drainage structures.

___ 9. Are pipes between manholes of like material and class.

___ 10. Have existing waste water laterals been shown on the plans, with station, length and depth.

___ 11. Have waste water lines been designed with the entry into the manhole by the proposed waste water lines at an angle of 90° or greater to the downstream line, or if an exception has been granted, the engineer has increased the drop through the manhole to compensate for the reduced angle and has provided a blowup detail for the appropriate invert shaping that achieves the same results as a 90° or greater entry.

___ 12. Whenever connecting waste water laterals to an existing waste water line, has proper notation been put on the plans that "the contractor must use a mechanical hole cutter when tapping the existing waste water line and that an approved saddle shall be used" and the appropriate lots affected by this have been identified in the note.

___ 13. Where new manholes are proposed over existing lines, have distances from the new manhole to the two existing manholes been shown; inverts of the manhole and each existing manhole are shown; slope of existing line from new manhole to upstream and downstream existing manholes been shown.

___ 14. Have manholes that are proposed within areas where vehicles travel been located either on center line of road or center of traveling lane.

___ 15. Has the engineer provided the manhole number, as directed by DPW, and the City project number associated with the existing manhole.

___ 16. Have minimum finish floor (sewer) elevations been specified.

___ 17. Provide a note on the plans stating that the 6" waste water laterals are to be installed at 1% grade (min.).

___ 18. Provide the invert elevation of the Clean Out at the ROW line for each lateral.

___ 19. Sampling manholes are required for new facilities currently regulated by local or federal industrial waste pretreatment laws. Examples of these commercial facilities include, but are not limited to, restaurants, carwashes, auto repair shops, and Laundromats. Appropriate measures have been included in the design to allow for sampling of industrial waste. A sampling manhole shall be provided at the property line to facilitate random 24-hour composite sampling. In those cases where a private manhole on-site can be utilized for this function, adequate provisions will be agreed upon to facilitate sampling. Provisions include ingress/egress to the private manhole, ability to sample, and adequate space to set a 24-hour composite sampler.

ADDITIONAL COMMENTS:

Utility Profile Sheet(s) shall contain the following information:

___ 1. Proposed, existing, and original ground elevations are shown.

- ___ 2. Existing centerline profiles and stations must be shown on all utilities (water and waste water).
- ___ 3. Stations shown on profile must agree with stations shown on plan. Stations must progress in the same direction on both plan and profile.
- ___ a. Does stationing ascend from left to right.
- ___ 4. Show proposed water and waste water crossings at the proper location and grade, as well as culvert or storm sewer crossings.
- ___ 5. Each utility system (water and waste water) should be shown in its entirety to include, as a minimum, the following information: (including Structure number)
- ___ a. Percent of grade and length
- ___ b. Size and material
- ___ c. Show valve, T's, meters, blow offs, hydrants, manholes, clean-outs, tees, bends, grinder pumps, flushing connections, etc. with proposed elevation for tops/inverts.
- ___ d. Show existing and proposed ground surface over centerline of system.
- ___ e. Existing/Proposed drainage improvements passing perpendicular to the system or sharing a common easement (to include outer elevation)
- ___ 6. Where waste water lines are in excess of 12' deep, the location of the waste water lateral has been identified and must be installed in accordance with the standard details and the appropriate notes are reflected on the plans.
- ___ 7. All "%" slopes are divisible by 4 to the nearest hundredth, where possible.
- ___ 8. Greater than 0.4% minimum slope has been used whenever possible.
- ___ 9. Has a legend been provided for waste water and water lines, other utilities and structures existing and proposed ground and pavement profile.
- ___ 10. Do the crowns of all waste water lines enter the manholes at crown's level or higher as specified in the design standards.
- ___ 11. Has a minimum of eighteen (18) inches of vertical clearance been designed and provided at all crossings of other utilities, or as specified by other utility agencies, or otherwise approved by the Department of Public Works.
- ___ 12. Do all water lines have a minimum cover of 3.5'.
- ___ 13. Has the depth of any ditch(es) been shown on the profile.

ADDITIONAL COMMENTS:

Hydrology:

Include the following note in the review comments for all Construction Plans:

It is acceptable but not advisable to show hydrological and hydraulic calculations on the plans. A revision to the calculations can be handled by separate submittal when they are not shown on the construction plans. When they are shown on the plans, a complete resubmittal of the plans to the Department of Public Works is required.

- ___ 1. Rational Method limited to maximum 200 acres
 - ___ a. 1.25 Saturation factor used for 100-yr storm calculations.
 - ___ b. OLF length does not exceed 200 feet
 - ___ c. flow path shown/labeled
- ___ 2. TR-55 method used for areas exceeding 200 acres
- ___ 3. Are runoff coefficients, CN's, Tc's and drainage areas acceptable.

ADDITIONAL COMMENTS:

Hydraulics:

- ___ 1. Culverts, storm sewer and open channels designed to minimum 10 year criteria:
 - ___ a. 10-yr flow less than pipe capacity.
 - ___ b. 10-yr HW/D < 1 for private entrance culverts within ROW
 - ___ c. All calculations submitted on standard VDOT forms
 - ___ d. All pipes are Class III RCP at a minimum.
 - ___ e. Dimensioned channel section with 10-yr lining depth, side slopes, bottom width specified/shown in plan/profile
 - ___ f. Open channel slopes < 0.75% shall be paved.
 - ___ g. Open channel/Storm sewer minimum slope 0.2%
 - ___ h. Manhole steps required in structures 4 feet and greater in depth
 - ___ i. EC-1 or OP specified at beginning and ends of storm sewer/culverts

- ____ j. IS-1 restricted to pipe diameters < 30"
- ____ k. Pipe diameter > 30" shall qualify for 50% reduction in junction losses only if precast manhole tee's and elbows specified
- ____ l. First roadside ditch culvert adjacent to drainage break may be 12" RCP.
- ____ 2. Specify private/secondary RCP entrance culvert diameters and lengths on each lot.
 - ____ a. Minimum 20' length for private/secondary entrance culverts
- ____ 3. Open Channel:
 - ____ a. Riprap channels not acceptable in front or beside single-family homes unless further than 100' from homes or otherwise approved.
 - ____ b. Riprap channels can be used to rear of lots if no closer than 75' to homes.
 - ____ c. Where paved channels are steeper than 15%, anchor lugs are required every 10', C' – C'
 - ____ d. 8" vertical wall (freeboard) required along outside radius of paved ditches.
 - ____ e. In the absence of a detailed soils report, the maximum permissible velocity allowable on bare earth is 3.5 fps. Velocities between 3.5 fps and 4.0 fps require a jute lining and any velocities greater than 4.0 fps require a structural lining of either riprap or concrete.
 - ____ f. Open channel depths shall be less than 3', otherwise channels shall be piped.
- ____ 4. Riprap lining a minimum 24" thickness with geotextile fabric underlayment at a grade of 0%.
- ____ 5. Has 3 inlet configuration or CG-6 with concrete driveway aprons specified on cul-de-sac's intercepting upstream road runoff.
- ____ 6. Hydraulic grade line calculations are required to support the design of all proposed storm sewers. (10 & 100 year calculations)
- ____ 7. Culverts, storm sewer, and open channels analyzed for 10-yr property protection
 - ____ a. Are 10-yr contained within easements/ROW or 10-yr overflow limits shown.
 - ____ b. Are 100-yr backwater limits/elevations shown.

- ___ c. Do single point access roads and secondary entrance culverts pass the 100-yr storm without overtopping the road sag. Maximum 6" overtopping with second point access.
 - ___ d. Are 100-yr Floodplain limits shown along natural drainage ways.
 - ___ e. Are 100-yr Floodplain cross sections with elevations shown along floodplain limits.
 - ___ f. Are MFF elevations specified at lots 1' foot above 100-yr floodplain (FP) or backwater (BW) or road sag (SAG) elevations, whichever is greater.
 - ___ g. Where flatter topography exists, 100-yr floodplain limits must be field verified by licensed professional and so stated on the plans.
 - ___ h. Where flood proofing is required, a registered professional engineer or architect shall certify that the flood proofing methods are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood prior to approval of the building permit by the Department of Public Works.
- ___ 8. Headwalls/Endwalls are required for pipes 24" or larger, or multiple lines or when slopes exceed 15%.
- ___ 9. All roof water and down drains must be collected and discharged in a non-erodible manner.
- ___ 10. House/Yard/Roof drains must either connect at inlets or Boot connectors must be specified in the tabular drainage description for all plastic pipes that tie into a concrete structure. Provide a detail.
- ___ 11. DI-1 yard inlets required in city easements - horizontal grate/inlets not acceptable.
- ___ a. Specified minimum 2' concrete gutters
 - ___ b. Specified slot opening locations (N,E,W,S)
 - ___ c. DI-1 detail included in construction plan details
- ___ 12. For car washes, unless they are using a recycle system for the water, it must be connected to the waste water system.

ADDITIONAL COMMENTS:

Easement Plan:

___ 1. A separate plan sheet must be included which only shows all proposed easements and right of way to be dedicated. Metes and bounds must be provided.

___ 2. Do the Type/Location of easements match location of all ingress/egress, utilities and basins on plan.

___ 3. Are all public sanitary, storm, water, loop detection, sidewalk easements labeled as "Utility Easement"

___ 4. Are Ingress/Egress Access Easements shown between adjoining properties and along any joint entrance roads

___ 5. Are Utility easements for waterlines extended to include meters and fire hydrants

ADDITIONAL COMMENTS:

Pre and Post Drainage Area (General Topographic) Sheet(s) shall contain the following information:

Include the following note in the review comments for all Site Plans:

The department has not performed a review of those on-site drainage conveyance systems whose contributing drainage areas lie within the limits of the property and are not required to be enclosed in a city easement.

___ 1. The drainage area plan shall not be incorporated into the EC plan.

___ 2. Show existing contours (maximum of five foot interval) to mean sea level datum (or lesser interval where deemed necessary by Department of Public Works).

___ a. Numeric contour elevations clearly shown

___ b. Contours clearly establish ridge lines

___ 3. Show proposed and existing road right of way with road lanes, layout, property and lot lines; Residential and commercial buildings, parking lots, other physical features etc. (1"=50' or 100')

___ 4. Show on contour map, the stations and lot numbers.

____ 5. Indicate schematically, all proposed and existing drainage structures, channels, etc. showing structure numbers.

____ 6. Indicate limits of drainage areas and the acreage of each area. When the off-site drainage area becomes larger than one hundred (100) acres, the limits of the area may be shown on a larger scale map (maximum 1"=2000') with a larger contour interval (maximum 10'). All drainage area maps must be scaled maps and completely contoured with contour elevation and part of the actual plan assembly. (not submitted separately)

____ 7. Indicate limits of computed 100-yr flood plains, 100-yr BW, wetlands, RPA's/RCMA's and identify.

____ 8. Use arrows to indicate direction of flow on all roads, ditches, pipes, rivers, etc.

ADDITIONAL COMMENTS:

Traffic Control Plan:

____ 1. Is temporary vehicle detection needed at the proposed entrance prior to construction activity commencing.

____ 2. Are permanent vehicle detection loops and/or any modifications to existing loops shown.

____ a. Are easements necessary.

____ 3. Are traffic control boxes or wiring shown.

____ a. Are any easements necessary

____ 4. Are modifications to existing traffic signals and installation of overhead signage necessary at intersection or entrance, etc....

____ 5. Are Traffic notes and details that are applicable to the required improvements and modifications to existing traffic signals/signage for this site.

____ 6. Does a Larger scaled detailed drawing or inset need to be provided to better show pavement markings, signage or other traffic devices.

____ 7. Have transitions been shown from proposed pavement markings to existing, such as transitions from proposed entrance gutters or E/P to existing white edge lines.

- ___ 8. Have directional arrows been shown on pavement for all turning lanes.
- ___ 9. Do proposed site entrances properly and safely address vehicular movement to and from site and through site.
 - ___ a. This needs to be addressed with signage and pavement markings.
- ___ 10. Are mini skip lines shown on any Dual turn lane.
- ___ 11. Does the proposed entrance or roadway align with other roads at an existing intersection/roadway. This **must** be shown on the plan.
- ___ 12. Entrance width shown f/c – f/c (14’-20’ one way or 30’-50’ two way)
- ___ 13. Have all existing pavement markings and traffic signal devices been shown.
- ___ 14. Have R1-1 stop signs and 24” stop bars been shown at all exits/ intersections.
- ___ 15. Has above ground signage been shown for handicapped spaces.

ADDITIONAL COMMENTS:

Lighting Plan:

- ___ 1. Include project section sheet showing proposed streetlight locations, as per the streetlight policy.
 - ___ a. The location, type, and height of the luminaries, including all exterior lights, light poles, lighting under canopies, and lights attached to or directed towards building.
 - ___ b. A description of the luminaries, including lamps, poles or other supports, and shielding devices which may be provided as catalogue cut sheets from the manufacturer.
 - ___ c. A photometric plan over the site plan.
 - ___ d. Any required easements shown.
- ___ 2. Is the Ornamental light cabinet shown with a direct on/off switch.
- ___ 3. Do the plans show how the light cabinet will obtain electricity.
- ___ 4. Are the Ornamental light cabinets on 2’ minimum concrete pad.
- ___ 5. Is 2” conduit shown beneath entrance aprons within grass strip for future lighting.
- ___ 6. Do the plans show schematics for any proposed underground wiring.

ADDITIONAL COMMENTS:

Landscaping Plan:

___ 1. A ten-foot-wide landscape strip shall be provided along all property lines that abut public rights-of-way. For large lots, a five-foot wide landscape area also shall be provided between parking areas and public alleys.

___ 2. Landscaping strips separating parking areas and adjacent property lines shall be required as follows:

___ a. For small lots (<22,000 sq. ft.), a minimum of 2.5 feet.

___ b. For large lots (>22,000 sq. ft.), a minimum of five feet. In addition, between parking areas and buildings, there shall be a minimum of 10 feet to allow for a five-foot wide sidewalk and a five-foot wide landscape area immediately adjacent to the building.

___ 3. All proposed dumpster locations and SWM/BMP facilities shall be screened by plantings in addition to any required board fence screening or fencing necessitated for safety issues. The type, size and spacing of plantings shall be the same as that screening required for parking areas.

___ 4. Parking areas screened.

___ a. Parking areas of a small lot shall be landscaped from adjoining public rights-of-way.

___ b. Parking areas of a large lot shall be landscaped from adjacent properties and public rights-of-way.

___ c. Parking areas shall be screened by the use of appropriate plantings for year-round coverage (e.g., evergreens) and shall be a minimum mature height of 3.5 feet, except where traffic safety concerns regarding sight distance are present.

___ d. The preferred shrub species to be used to fulfill this requirement shall include, but not be limited to, Upright Yew, Winterberry (a.k.a. Northern Bayberry), Sentinel Japanese, Buford Chinese, or Nellie R. Stevens Holly, Hetz Juniper, Glossy Privet, Autumn Eleagnus, Red Photinia.

____ 5. Trees required along property lines.

____ a. For a small lot, a minimum of one tree shall be provided for every 50 feet of the property line, or part thereof, that abuts public rights-of-way; i.e., 60 feet of property line requires two trees.

____ b. For a large lot, a minimum of one tree shall be provided for every 50 feet of all property lines, or part thereof; i.e., 60 feet of property line requires two trees.

____ c. The placement of trees shall be evenly spaced and/or coordinated with existing conditions and proposed improvements as provided herein and shall be in addition to any other screening that may be required. Each tree shall be located in the landscape strip provided by the above-mentioned requirements.

____ 1. The preferred tree species to be used to fulfill this requirement shall include, but not be limited to, Eastern Red Bud, Crepe Myrtle, Pear (any variety), Dogwood, Yoshino or Kwanzan Cherry, Golden Rain Tree.

____ 6. Interior parking lot landscaping.

____ a. Interior parking lot landscaping shall be provided by the use of raised, curbed, landscaped islands and areas, and, for a large lot, also at each end of an aisle of parking. A maximum of 15 parking spaces uninterrupted by a landscape island is permitted. Landscape islands separating parking spaces shall be:

____ 1. For small lots, a minimum of five feet wide by 18 feet deep with rounded ends; and

____ 2. For large lots, a minimum of eight feet wide by 18 feet deep with rounded ends.

____ b. One shade tree shall be required for every 10 parking spaces. The tree shall be planted within the interior of the parking lot and in one of the islands provided, either the end and/or middle of a parking row. Trees planted along the property line boundaries do not count toward fulfilling this requirement.

____ 1. The preferred tree species to be used shall include, but not be limited to, Maples (excluding Red, Silver, or Norway), Thornless Honeylocust, Autumn Purple Ash, Oak (Northern Red, Scarlet, or Swamp Chestnut), Littleleaf Linden, Green Ash, Golden Rain Tree, Pear (any variety).

____ c. Redevelopment of existing parking lots. Interior parking lot islands, perimeter landscaping and other landscaping required in this section shall be installed at the time existing parking lots are redeveloped as part of a new plan of development.

____ 1. If minimum off-street parking standards cannot be met, interior and perimeter landscaping areas that were formerly parking spaces can be counted as part of the minimum parking space requirements

____ 7. Minimum size of plantings:

____ a. The following sizes shall be used as the minimum installation size for the different plantings proposed on the landscape plan:

____ 1. Evergreen trees: five feet tall at time of planting, measured from the finished grade.

____ 2. Deciduous trees: two-and-five-tenths-inch caliper.

____ 3. Screening shrubs: two feet tall, measured from the finished grade.

____ 4. Screening shrubs shall be spaced to provide 70% capacity within three years.

____ 8. Plantings selection:

____ a. Species with potential nuisances, such as roots, seed pods, fruit, etc., should be avoided.

____ b. When more than five trees are required to be planted on a site, no more than 50% of those trees shall be of one species.

____ c. When more than 25 trees are required, no more than 25% of the required trees shall be of a single species.

____ d. No trees will be allowed in any proposed public easements utilized for utilities.

6.1.4 - Personnel Training on Pollution Prevention Measures

Instructions: Record below the names of the employees trained during this evaluation year and the dates trained. 25% of required employees must be trained each evaluation year.			
Date	Employee Name	BMP Resource Number	Certification Affirmation <i>(by signing below I am affirming that I have undergone the training noted on the date assigned)</i>
5/8/2014	Michael West	2014 SWT - APWA 2,32,25,40	
5/8/2014	Daniel Kanusek	2014 SWT - APWA 2,32,25,40	
5/8/2014	Theodore Berberich	2014 SWT - APWA 2,32,25,40	



Meeting Initiation Checklist



Project Name (where applicable):

Facilitator:

Meeting Date:

Background				
Reason for meeting:				
Objectives				
	Yes	No	N/A	Explain if applicable:
Did <i>a priori</i> meeting objectives exist?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did these objectives change throughout the course of the meeting?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the objectives of the meeting prioritized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have action items been associated to these objectives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>If yes, explain under Action section, below.</i>
Constraint(s)				
	Yes	No	N/A	Comments
Do the objectives/action items have time limits or deadlines attached to them?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have interdependencies between other projects or continuing objectives been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have community constraints been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have administrative constraints been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Meeting Deliverables				
	Yes	No	N/A	Comments
Were deliverables defined during the meeting?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has acceptance criteria been established for each deliverable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Implementation Estimates				
	Yes	No	N/A	Comments
Proposed start date of action items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Proposed end date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Actions:

Use this section to identify the meeting's action items and to assign an action item ID, if applicable.

ID	Action Item	Assigned To	Due By

Attendants:

Name: _____ Department: _____ Date: __/__/__

**CITY OF COLONIAL HEIGHTS
DEPARTMENT OF PUBLIC WORKS
OPERATION AND MAINTENANCE INSPECTION RECORD**

1. A licensed professional engineer must conduct all inspections utilizing the approved construction plans.
2. As a minimum, all items must be inspected and any discrepancies and necessary repairs noted. Include estimated cost of necessary repairs or actions.
3. Upon completion of the inspection, one (1) copy, indicating estimated completion date and cost of noted discrepancies and repairs, is to be forwarded by the inspection firm to the: City of Colonial Heights, Department of Public Works, Attn: SWM/BMP Inspection Report, P. O. Box 3401 Colonial Heights, VA 23834. The original form must be forwarded to the owner of the facility.
4. The facility owner's representative must indicate on the original form the actual completion date and actual cost of acquired repairs, after which the facility owner must sign and return one (1) copy of the form to the: City of Colonial Heights, Department of Public Works, Attn: SWM/BMP Inspection Report, P.O. Box 3401 Colonial Heights, VA 23834.

Name of Project:			Location Project:		
Owner of Facility:			Date of Inspection:		
Inspection Item	Acceptable?		N/A	If Not Acceptable Describe Repairs Needed	Estimated Cost of Repairs
	Yes	No			
I. DAM / EMBANKMENT					
A. Vegetation					
1.) Trees					
2.) Bare Spots					
B. Settlement/Stabilization					
1.) Cracks					
2.) Depressions					
3.) Erosion					
C. Rodent/Wildlife Damage					
D. Evidence of seepage					
E. Bridges					
II. PRINCIPAL SPILLWAY					
A. Obstructions in Spillway					
B. Inlet and Outlet Structures					
1.) Signs of seepage					
2.) Separation of joints					
3.) Cracks, Breaks, or Deterioration of Concrete					
4.) Differential Settlement					
5.) Undermining					

Name of Project:

Inspection Item	Acceptable?		N/A	If Not Acceptable Describe Repairs Needed	Estimated Cost of Repairs
	Yes	No			
II. PRINCIPAL SPILLWAY (cont'd)					
C. Settlement Buildup					
D. Scour at Inlet					
E. Riser and Trash Rack					
1.) Vertical Position					
2.) Securely Attached					
3.) Stone Cone Functional					
4.) Low Flow Perforations Functional					
5.) No Accumulated Debris					
III. GATES OR VALVES					
A. Fully Functional					
B. No Rust Damage					
C. No Evidence of Leaking					
VI. RESERVOIR AREA					
A. Inlet Structures					
1.) No Erosion					
2.) No Settlement					
3.) No Undermining					
4.) No Silt Buildup in Forebays					
B. No Silt Buildup in Entire Basin					
C. Wet Volume per Design					
V. LOW FLOW CHANNELS					
A. No Sediment Buildup					
B. No Accumulated Debris					
C. No Undermining					
D. No Other Damage of Deterioration					
VI. WETLAND GRASSES					
A. If Required by Plan, Present Where So Required					

Name of Project:

Inspection Item	Acceptable?		N/A	If Not Acceptable Describe Repairs Needed	Estimated Cost of Repairs
	Yes	No			
II. FENCES					
A. Posts in Place and Secure					
B. Fencing in Place and Secure					
C. No Accumulated Debris					
D. Access Gate Functions					
E. Vegetative Barriers in Place					

Note Any Other Discrepancies Observed and Necessary Repairs (attach separate page if necessary). Attach Pictures of Condition at

Time of Inspection.

Estimate Repairs Completion Date:	_____	Total Estimated Cost of All Repairs:	_____
--	-------	---	-------

The Professional Engineer's Information:

Inspection Conducted by: _____ P.E.

Firm: _____

Address: _____

Phone: _____



Place signed, Professional Stamp Here

Signature of P.E.

Performing the Inspection: _____

Facility Owner Information:

Owner's Representative: _____

Representative's Title: _____

Mailing Address: _____

Phone: _____

ACTUAL DATE ALL REPAIRS COMPLETED:

ACTUAL TOTAL COST OF ALL REPAIRS

Attach pictures of completed repairs

Representative's Signature: _____

Maintaining Your BMP



Stormwater Management • Department of Public Works • City of Colonial Heights

BMPs, or Best Management Practices, are facilities designed to reduce the impacts of pollutants and increased stormwater, caused by development, on local streams. They are an essential part of a region's efforts to restore aquatic habitats in, and protect the health of, its waters. However, BMPs will fail if not properly maintained. Once a BMP fails, it will no longer perform its intended functions and is often very expensive to replace. The following is information that will help you maintain your BMP and potentially avoid expensive long-term repairs.

Which type of BMP do you have?

BMPs exist in several types and various sizes. **Dry ponds** retain water for a specified period of time (usually 48 hours) after a storm. **Infiltration trenches** are gravel-filled excavations that temporarily store stormwater and allow it to slowly sink into the underlying soil. **Wet ponds** contain a permanent pool of water much like a lake. **Grassed swales** are earthen, hill-like conveyance systems designed to simply transfer runoff to areas that will allow stormwater to soak into the soil where particles are trapped by the groundcover. **Sand filtration systems** (sand filters) are used to treat runoff from highly impervious areas like paved parking lots and high density residential areas, usually constructed inside a concrete shell and placed underground. **Bioretention facilities**, or rain gardens as they are often called, are basins designed to mimic the conditions found on a mature forest floor by being planted with specific types of vegetation, some of which are selected because of their ability to hold and convert pollutants to biomass.

Routine Maintenance...

While actual maintenance needs will vary according to the specific facility and site conditions, the following are a few routine steps you can take to ensure the proper function of your BMP.

💧 Mowing

Most grass is hardiest if it is maintained as an upland meadow, cut no shorter than 6 to 8 inches. If a more manicured look is desired, special attention to the health of the turf is needed and professional landscapers should be consulted. Grass should never be cut below 4 inches. Grass on embankments should be cut at least twice during both growing seasons and once during the summer.

💧 Sediment Build-Up

Because vegetation surrounding a BMP is designed to trap sediment, it is likely to become laden with sediment causing bare spots to emerge. Bare areas should be vigorously raked, backfilled if needed, and covered with top soil. Disturbed areas should be seeded with a tall fescue grass seed. Excess material should be taken off-site and can be used as a mulch or soil supplement. If the soil becomes compacted, it will require aeration by a landscape company.

💧 Unwanted Vegetation

Certain types of vegetation are destructive to a BMP. Keeping the dam and bottom areas of your BMP free of deep-rooted vegetation (trees and bushes) is critical because roots can destabilize the structure. Consistent mowing and monitoring will control any unwanted vegetation.

💧 No-Mowing Zones

For wet ponds, a 10 foot un-mowed vegetated buffer around the perimeter of the facility (exclusive of the dam embankment) may be established to filter pollutants from adjacent properties and to help prevent shoreline erosion.

💧 Structural Stabilization

Animal burrows, in addition to the deep-rooted trees and bushes mentioned above, will also deteriorate the structural integrity of an embankment. Muskrats in particular, will burrow tunnels up to 6 inches in

diameter into pond and dam walls. Efforts should be made to control excessive animal burrowing, and existing burrows should be filled as soon as they are discovered.

Mechanical Components

Some BMPs have mechanical components that need periodic attention (valves, sluice gates, pumps, fence gates, locks, etc) and should be functional at all times. This type of routine maintenance is best left to a BMP professional.

Insect Control

Mosquitoes are not a common problem in regularly maintained BMPs since they are designed to let the water escape. Regular maintenance then, is the best

way to prevent mosquito issues. The best control technique for ensuring that stagnant pools of water do not develop is debris control. For BMPs that have a permanent pool of water, this means the prompt removal of floatable debris wherein stagnant pools could collect.

Debris & Litter Control

Regular removal of debris and litter can help reduce the chance of clogging in outlet structures, prevent damage to vegetated areas, reduce mosquito breeding habitats, maintain facility appearance and reduce conditions for excessive algae growth. Special attention should be given to the removal of floating debris which can clog inlet and outlet devices.

When to call a professional...

Self-inspection of your BMP should be able to identify unexpected or irregular ponding, improper health of vegetation or growth of unwanted vegetation, obstructions of the inlet or outlet, excessive erosion or sedimentation, signs of dumping or pollutants other than sediment, cracking or settling of the BMP's structural components, wetness on the downstream side of the dam (indicating seepage), low spots or sinkholes in bottom areas, deterioration of pipes, condition of the emergency spillway, condition of fences, shore erosion, stability of the side-slopes and downstream channel conditions, as well as signs of vandalism. Inspection of underground systems like sand filtration systems or infiltration trenches are obviously more difficult. A non-professional should never enter confined spaces meant for maintenance personnel. However, circumstances like water remaining in the system longer than designed draw down time, obvious signs of excessive sediment build up or debris around the facility and signs of disturbance of manholes or damage to the structure caused by vehicles or settling are indications that your BMP could benefit from a professional's services. Though Colonial Heights requires biannual inspections of your BMP, in many instances, an annual inspection will benefit your facility by decreasing the potential for development of serious maintenance concerns.

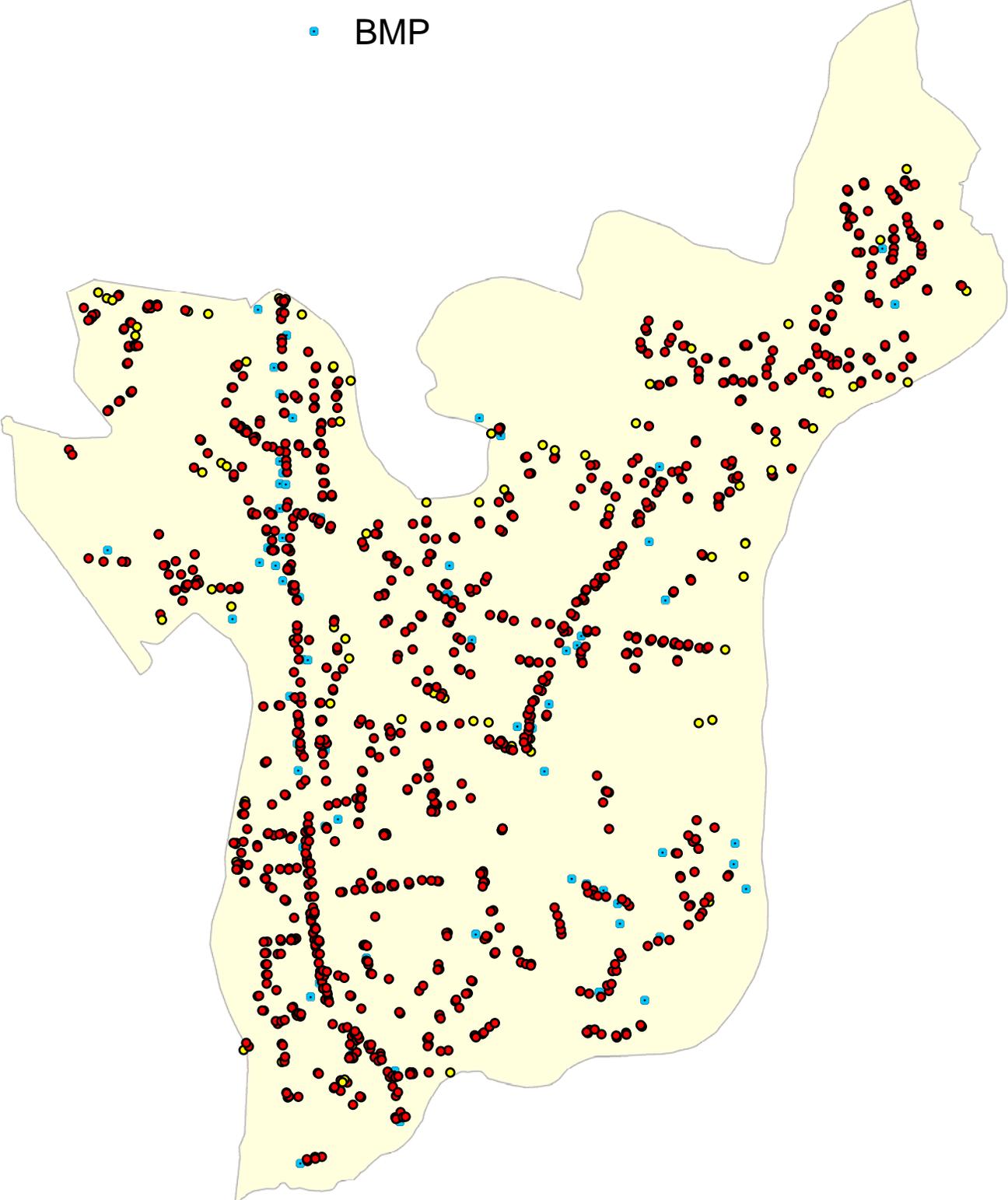
Remember...

Routine and scheduled maintenance will help keep your BMP operating to its design, help ensure that our City and its waters are a healthier place to live, and could help save you some costly maintenance or repair bills.



Structural Stormwater Controls in Colonial Heights

- Outfalls
- Inlets
- BMP



Storm Water Pollution Prevention Training



For Municipal Facilities
In the City of Colonial Heights

BMP PT01

What is Storm Water?

- Storm water is water flowing over the land during and immediately after a rain storm.
- Storm water does not flow into a wastewater treatment system, it flows into our surface waters. The Appomattox River, Swift Creek and Old Town Creek receive approximately 159,000 gallons of storm water runoff each year.
- What we do on the land affects the water quality and the habitat of our creeks and rivers. It also affects our quality of life, our fisheries, our recreation and our drinking water.

Why we're required to improve our storm water discharges:

- In 1972, Congress passed the Clean Water Act (CWA), focusing on point source pollution discharges to surface waters.
- In 1990, the EPA began National Pollutant Discharge Elimination System (NPDES) permitting to address both point and non-point sources of pollution.
- Municipalities are required to have an NPDES Permit for their storm water discharges. The permit stipulates that any municipal facilities have a Storm Water Pollution Prevention Plan (SWPPP), observe their discharges (some also have to sample) and work to implement Best Management Practices (BMPs) to minimize the pollutants leaving their facilities.

City of Colonial Heights' Storm Water Program

- **Per the City's NPDES Permit, and as a result of a Consent Special Order (CSO) issued to the City of Colonial Heights, the City is responsible for enforcing storm water pollution prevention requirements.**
- **The City is committed to an active role in the reduction of pollution and the protection of human health and the environment.**
- **City facilities with industrial or O&M activities are required to comply with the NPDES industrial permit regulations.**

How do we achieve compliance with the NPDES permit?

- Facilities must have a SWPPP that 1) addresses all potential pollutant sources, and 2) has measures and controls needed to prevent pollution.
- Administrators must conduct an annual facility inspection and document the inspections in an annual comprehensive site evaluation report, updating the SWPPP with new BMPs.
- The facility must visually, and in some cases chemically, analyze its storm water runoff for signs of pollution.
- BMPs must be implemented in order to prevent pollution from your facility and employees must be trained.

What is the goal of training employees about storm water?

To stress the importance of being **AWARE** of and **ALERT** to conditions that could result in the discharge of pollutants to storm water sources.

To make employees aware of the **BMPs** utilized at City facilities and help them understand what is expected of them.

TRAINING TOPICS

Why Storm Water?

BMPs

- Vehicle Washing
- Chemical Storage Activities
- Sand/Soil Stockpiling
- Vehicle Fueling & Parking
- Waste Containers & Drum Management
- Outdoor Storage
- Preventive Maintenance
- Spill Prevention & Response

Why storm water?

Storm water is -

...the #1 source of nonpoint source pollution.

...an untreated source of pollution, unlike many forms of air and municipal water discharges.

...a three-fold concern for our water sources, carrying chemical, solid wastes and 'natural' (sediments & brush) pollutants into our water sources.

...responsible for as much as 75% of the average water body's pollution.

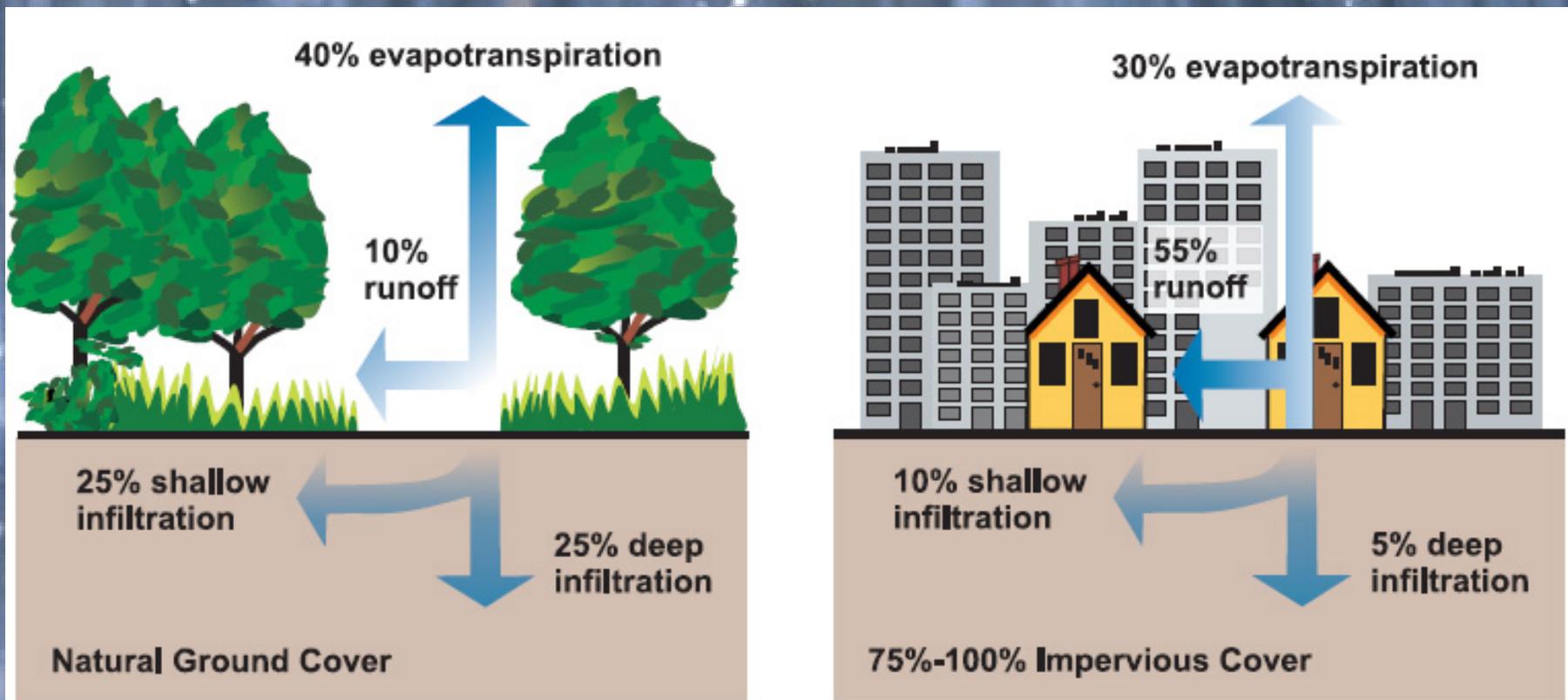
Storm water causes -

...vital plant species to be choked of essential oxygen and light.

...excessive growth of algal species that starve plants and micro-organisms of their food and light.

...human drinking water sources to be contaminated with e.coli, fecal coliform, PCBs and other potentially fatal bacteria.

...significant alterations of fish and amphibian reproductive capability and behavior.



When land is converted from its natural cover to such impervious covers as stone and asphalt, storm water runoff increases exponentially...

...And with the increased runoff...



**...and any oils & chemicals
on the ground are carried
into storm drains &
ultimately into nearby
water courses**

Don't forget about the dangers
of runoff *VOLUME*...



Best Management Practices (BMPs)

"A BMP is a technique, process, activity, or structure used to reduce the pollutant content of a storm water discharge. BMPs include simple nonstructural methods, such as good housekeeping and preventive maintenance. BMPs may also include structural modifications, such as the installation of bioretention measures."

Environmental Protection Agency

BMPs can be...

- 1. *Behavioral changes***
- 2. *Procedural changes***
and
- 3. *Structural controls***

...that are implemented or practiced with the goal of reducing the pollutants in storm water runoff.

BMP: Vehicle Washing



Washing equipment & vehicles is often a vital part of municipal operations. Washing operations that take place outside & without appropriate controls, however, contribute oils & salts from the equipment, detergents & phosphorous from the washes, & sands, sediments & grass clippings to our water sources via catch basins & other water conveyances.

Washing DO's & DON'Ts :

✗ Washing vehicles & equipment outside, on paved or graveled areas

✗ Rinsing debris & unused materials from vehicles or equipment prior to washing

✓ Vehicles should be washed inside of facilities fitted with floor drains that drain to appropriate treatment systems. If such facilities do not exist, vehicles & equipment should be washed on flat, grassy areas away from other water courses.

✓ Any unused materials should be scraped, shoveled or broomed from vehicles & equipment and properly collected for disposal. Rinsing unused sediments and materials onto the ground only means that those materials will end up in our water sources.

BMP: Chemical Storage

Improper chemical storage contributes ethylene glycol, diesel fuels, oils, antifreeze and heavy metals, arsenic and alkaline wastes to our water sources.



Inadequate storage containers directly adjacent to concrete valley gutter.

BMP: Chemical Storage

Containers should be sound, sealed, non-corrosive & leak-proof, & should be stored above ground level in a covered area.



Improper chemical storage contributes ethylene glycol, diesel fuels, oils, antifreeze & heavy metals, arsenic & alkaline wastes to our water sources.

All portable containers should be tightly sealed & clearly labeled. Tanks & other more permanent storage containers must be kept in good working order, free of leaks or other deficiencies. Berm areas around permanent storage facilities to avoid contamination & recycle all appropriate materials as soon as possible.

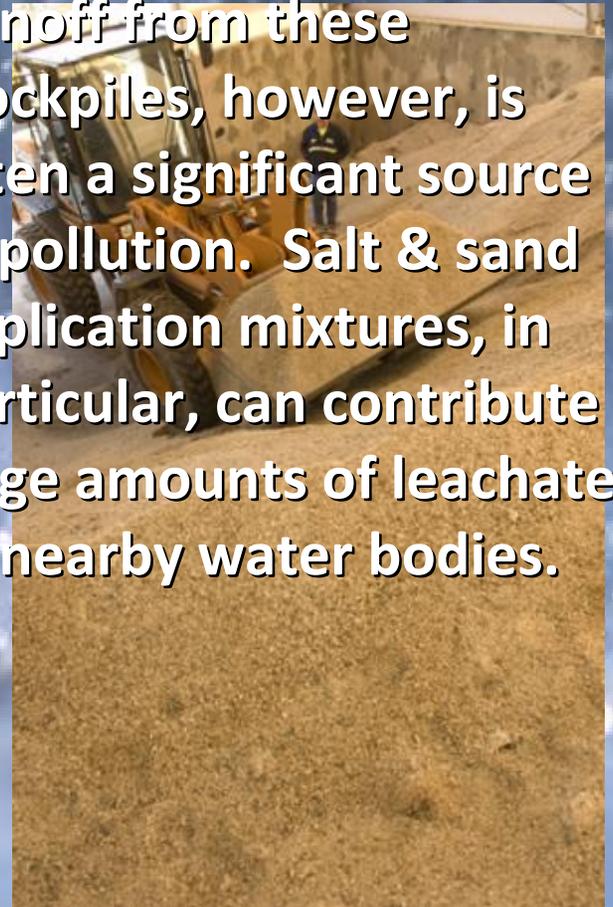
BMP: Sand/Soil Stockpiling

Sands, soils & aggregates are used for a wide variety of municipal activities and are thus an integral part of any



. This
in

Runoff from these stockpiles, however, is often a significant source of pollution. Salt & sand application mixtures, in particular, can contribute large amounts of leachate to nearby water bodies.



BMP: Sand/Soil Stockpiling

These materials should be stockpiled in an enclosed, roofed facility that prevents runoff from the access bays. Where this is not possible, stockpiles should remain tarped at all times. The perimeters of all stockpiles should be bermed to prevent sediment & chemical runoff. Consider checkdams in the drainage courses of these stockpiles.



BMP: Sand/Soil Stockpiling

Checkdams in the drainage courses of stockpiles are a good way to redirect undirected runoff and capture many of the sediments the runoff will contain.



BMP: Vehicle Fueling & Parking

Since multiple departments traditionally use a single municipal fueling station, these in particular can be a significant source of storm water runoff pollution. Fuels and oils spill onto the surrounding impervious surfaces to be tracked throughout by the tires of multiple vehicles per day, and what remains is carried into nearby water courses.



Parking areas contribute large amounts of pollutants to our waters annually.

BMP: Vehicle Fueling & Parking

As well, numerous vehicles are frequently parked at municipal facilities. The cumulative contribution of these parked vehicles can have a damaging impact on water resources.



BMP: Vehicle Fueling & Parking

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- fueling areas without curbs or barriers
- fueling areas without spill rags or absorbents readily available
- no or irregular cleaning & maintenance of fueling areas
- vehicle \ machinery parking on paved surfaces
- leaky vehicles or machinery parked without drip pans
- vehicles or machinery parked near runoff or water courses

- daily cleanup of fueling areas
- covered fueling areas
 - spill cleanup using granular absorbents, swept up and not hosed down
- spill rags available at every fueling station
- vehicle & machinery parked with drip pans
- parking on pervious areas like grass away from any drainage or water courses

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BMP: Waste Containers & Drum Management

Barrels & drums are commonly used for containment & storage in municipal activities. If not done properly, these containers often become sources of stormwater pollution. Make sure:

- All containers are appropriate for their use (no caustic chemicals in plastic drums)
- All containers are properly lidded & sealed
- Containers are stored well above ground level in a covered area
- Containers are regularly inspected for leakage or spillage



BMP: Waste Containers & Drum Management



Any hazardous waste products must be stored in covered drums & staged in an assigned area with secondary containment to prevent containment.

BMP: Outdoor Storage



Storing equipment in enclosed facilities fitted with proper drainage & catchment systems is ideal, but this is not always feasible or affordable.

Even where it is not, taking measures to avoid and/or prevent pollutant exposure such as that seen here is necessary.

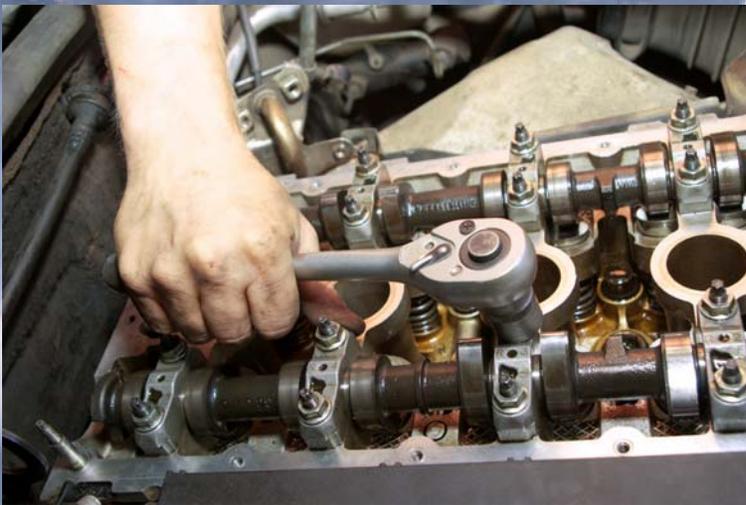


BMP: Outdoor Storage

Consider the following BMPs for outdoor storage...

- ✓ Confine storage of raw materials, parts, and equipment to designated areas away from high traffic, outside drainage pathways and away from surface waters.
- ✓ Provide secondary containment around chemical storage areas.
- ✓ Provide diversion berms, dikes or grassed swales around the perimeter of the area to limit run-on and runoff.
- ✓ Direct storm water runoff to an on-site retention pond.
- ✓ Use drip pans\drums under parts & equipment during storage.

BMP: Preventative Maintenance



Preventative maintenance can be applied as a BMP across many areas of municipal operations. Implementing a system of regular & preventative vehicle & equipment maintenance will keep many avoidable pollutants out of the City's watercourses. Determine which vehicles & equipment require maintenance & construct a program that encompasses routine preventative maintenance of these.

BMP: Preventative Maintenance

Make sure your Preventative Maintenance program encapsulates the following:

- ✓ An exhaustive list of all equipment & vehicles that require maintenance
- ✓ Schedules of how often each item requires maintenance
- ✓ The type of maintenance each item requires
- ✓ Designates an individual or individuals responsible for performing the necessary maintenance
- ✓ Designates an individual who will be responsible for administration of the Preventative Maintenance program
- ✓ Provides a documentation log for the program

BMP: Spill Prevention & Response

Spill prevention and response is an integral BMP for municipal facilities. Anything that is not swept up and cleaned entirely will end up at the outfall! Some key practices for this BMP are:

- *Identifying areas where significant materials can spill into or enter your storm water discharge systems*
- *Ensuring that employees are aware of emergency response procedures, including material handling and storage*
- *Ensuring that appropriate spill clean-up equipment is accessible*



BMP: Spill Prevention & Response

SPILL PREVENTION & RESPONSE PLAN

2. Spill Control Techniques Once a spill has occurred, the employee needs to decide whether the spill is small enough to handle without outside assistance. Only employees with training in spill response should attempt to contain or clean up a spill.

NOTE: If you are cleaning up a spill yourself, make sure you are aware of the hazards associated with the materials spilled, have adequate ventilation, and proper personal protective equipment. Treat all residual chemical and cleanup materials as hazardous waste.

Spill control equipment should be located wherever significant quantities of hazardous materials are received or stored. MSDSs, absorbents, over-pack containers, container patch kits, spill dams, shovels, floor dry, acid/base neutralizers, and "caution-keep out" signs are common spill response items.

3. Spill Response and Cleanup

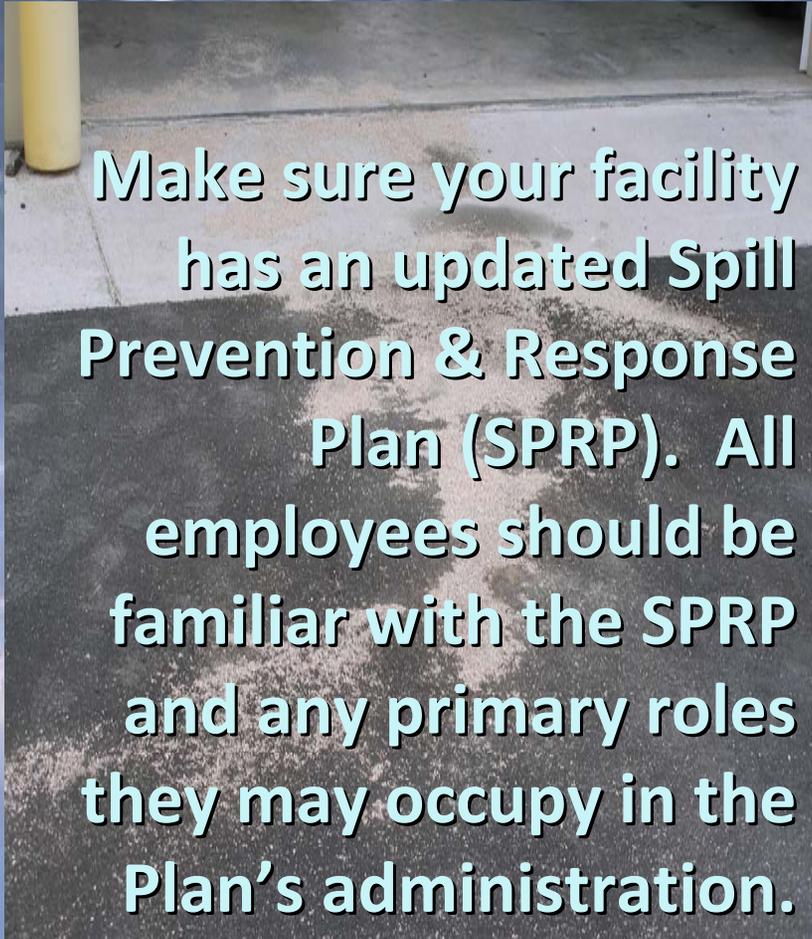
Chemical spills are divided into three categories: Small, Medium and Large. Response and cleanup procedures vary depending on the size of the spill.

Small Spills: Any spill where the major dimension is less than 18 inches in diameter. Small spills are generally handled by internal personnel and usually do not require an emergency response by police or fire department HAZMAT teams.

- Quickly control the spill by stopping or securing the spill source. This could be as simple as uprighting a container and using floor-dry or absorbent pads to soak up spilled material. Wear gloves and protective clothing, if necessary.
- Put spill material and absorbents in secure containers if any are available.
- Consult with the Facility Responsible Person and the MSDS for spill and waste disposal procedures.
- In some instances, the area of the spill should not be washed with water. Use Dry Cleanup Methods and **never** wash spills down the drain, onto a storm drain or onto the driveway or parking lot.
- Both the spilled material and the absorbent may be considered hazardous waste and must be disposed of in compliance with state and federal environmental regulations.

Medium Spills: Spills where the major dimension exceeds 18 inches, but is less than 6 feet. Outside emergency response personnel (police and fire department HAZMAT teams) should usually be called for medium spills. Common sense, however, will dictate when it is necessary to call them.

- Immediately try to help contain the spill at its source by simple measures only. This means quickly uprighting a container, or putting a lid on a container, if possible. Do not use absorbents unless they are immediately available. Once you have made a quick attempt to contain the spill, or once you have quickly determined you cannot take any brief containment measures, leave the area and alert Emergency Responders at 911. Closing doors behind you while leaving helps contain fumes from spills. Give police accurate information as to the location, chemical, and estimated amount of the spill.
- Evaluate the area outside the spill. Engines and electrical equipment near the spill area must be turned off. This eliminates various sources of ignition in the area. Advise Emergency Responders on how to turn off engines or electrical sources. Do not go back into the spill area once you have left. Help emergency responders by trying to determine how to shut off heating, air conditioning equipment, or air circulating equipment, if necessary.
- If emergency responders evacuate the spill area, follow their instructions in leaving the area.
- After emergency responders have contained the spill, be prepared to assist them with any other information that may be necessary, such as MSDSs and questions about the facility. Emergency responders or trained personnel with proper personal protective equipment will then clean up the spill residue. Do not re-enter the area until the responder in charge gives the all clear. Be prepared to assist these persons from outside the spill area with MSDSs, absorbents, and containers.
- Reports must be filed with proper authorities. It is the responsibility of the spiller to inform both his/her supervisor and the emergency responders as to what caused the spill. The response for large spills is similar to the procedures for medium spills, except that the exposure danger is greater.



Make sure your facility has an updated Spill Prevention & Response Plan (SPRP). All employees should be familiar with the SPRP and any primary roles they may occupy in the Plan's administration.

“Good Housekeeping” IS a BMP

Remember that pollution prevention at municipal facilities is essentially a “good housekeeping” effort. Examining and subsequently altering your own actions to ensure a reduction in the amount and type of pollution that results from your activities and is discharged into local waterways is good housekeeping, in a nutshell. Be proactive: look for problems and address them before they get worse.



Storage near an outfall



Untreated spill

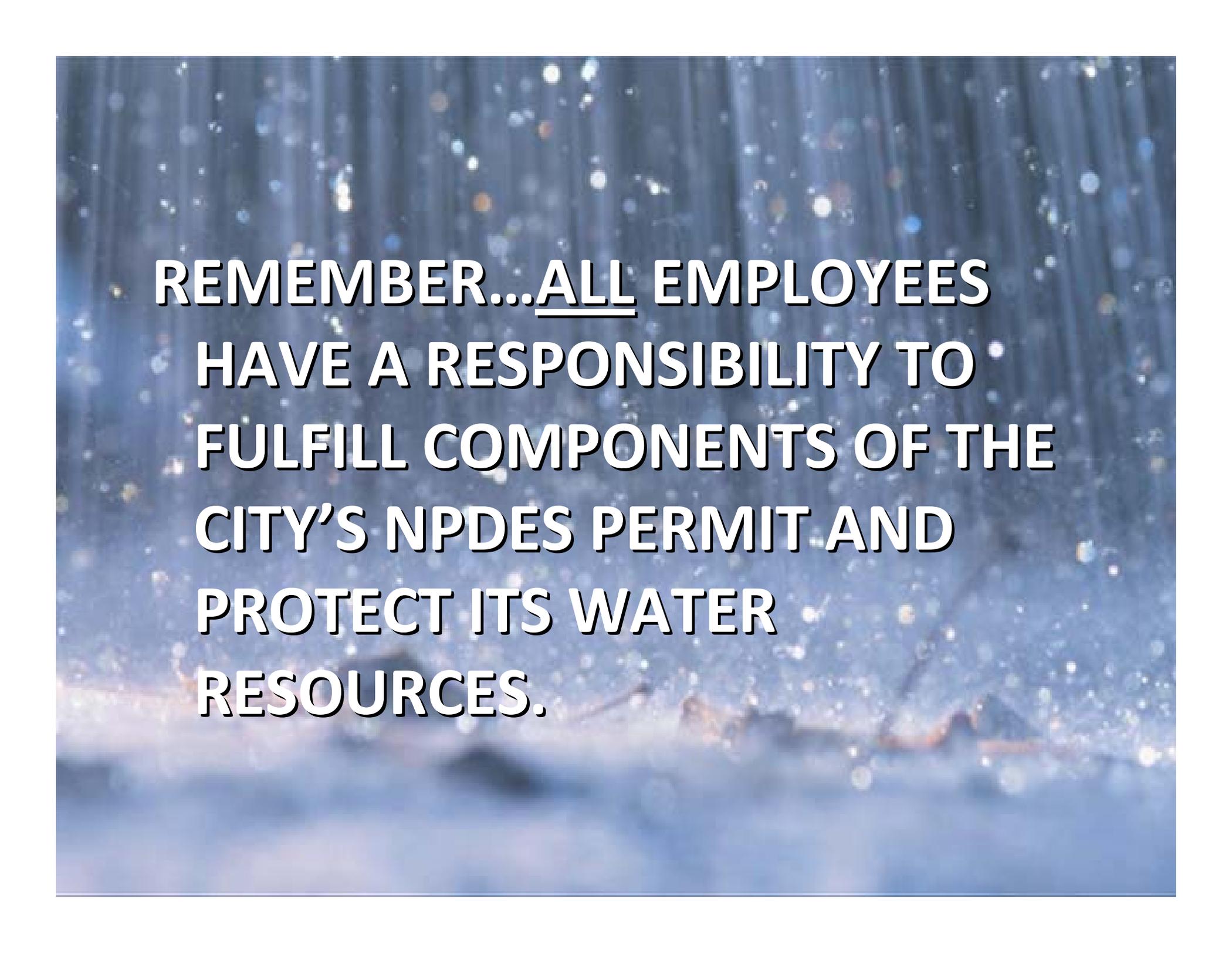
“Good Housekeeping” things to remember...

- ☞ Make sure that there are no discharges from building bay doors or other pathways
- ☞ Disconnect downspouts, particularly those to paved areas or near water courses
- ☞ Make sure that spill response equipment is readily available throughout buildings & that all employees are familiar with it
- ☞ Sweep floors & spills instead of washing
- ☞ Designate individuals to periodically inspect ‘hotspots’ for pollution



Downspouts contribute pollutants and to runoff velocity of stormwater



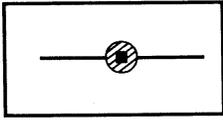


**REMEMBER...ALL EMPLOYEES
HAVE A RESPONSIBILITY TO
FULFILL COMPONENTS OF THE
CITY'S NPDES PERMIT AND
PROTECT ITS WATER
RESOURCES.**

BMP PT02

**EROSION & SEDIMENT CONTROLS IN ROAD, UTILITY
AND BRIDGE MAINTENANCE**

STD & SPEC 3.07

STORM DRAIN
INLET PROTECTIONDefinition

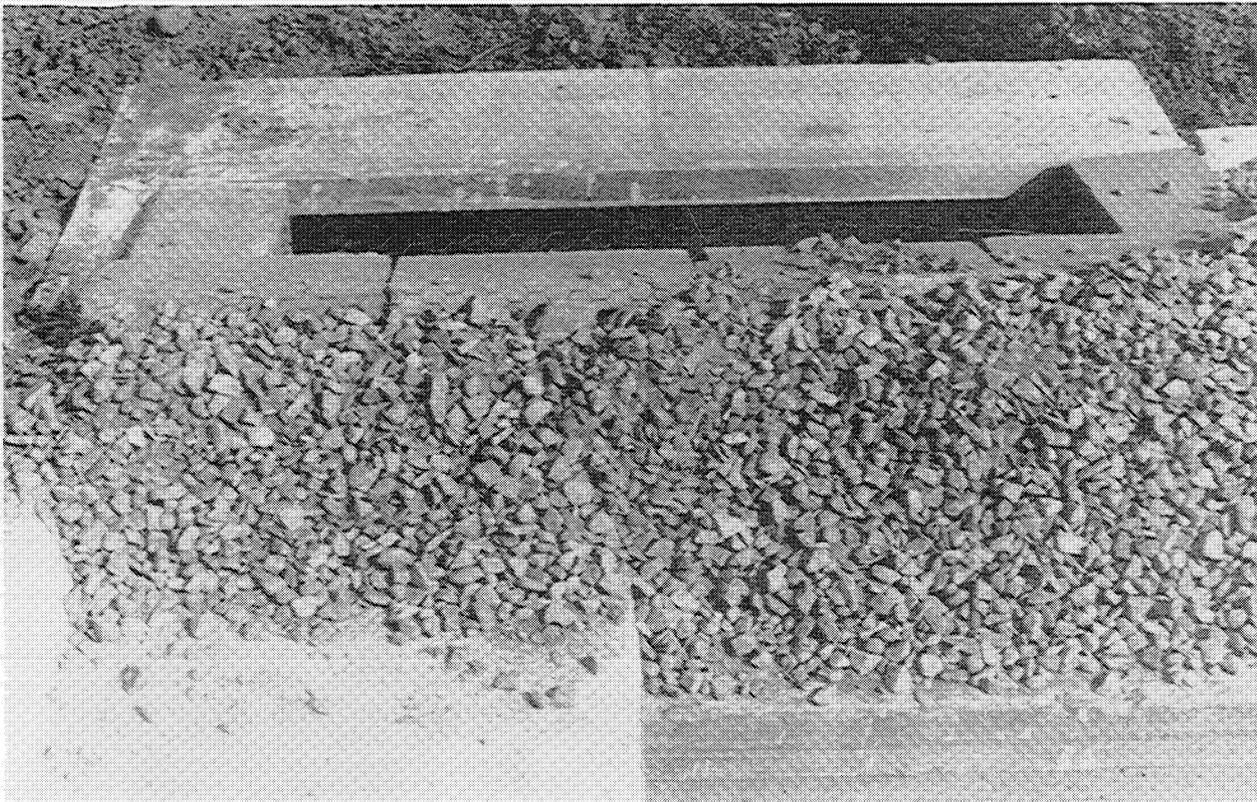
A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet.

Purpose

To prevent sediment from entering storm drainage systems prior to permanent stabilization of the disturbed area.

Conditions Where Practice Applies

Where storm drain inlets are to be made operational before permanent stabilization of the corresponding disturbed drainage area. Different types of structures are applicable to different conditions (see Plates 3.07-1 through 3.07-8).



Planning Considerations

Storm sewers which are made operational prior to stabilization of the associated drainage areas can convey large amounts of sediment to natural drainageways. In case of extreme sediment loading, the storm sewer itself may clog and lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets.

This practice contains several types of inlet filters and traps which have different applications dependent upon site conditions and type of inlet. Other innovative techniques for accomplishing the same purpose are encouraged, but only after specific plans and details are submitted to and approved by the appropriate Plan-Approving Authority.

Care should be taken when choosing a specific type of inlet protection. Field experience has shown that inlet protection which causes excessive ponding in an area of high construction activity may become so inconvenient that it is removed or bypassed, thus transmitting sediment-laden flows unchecked. In such situations, a structure with an adequate overflow mechanism should be utilized.

The following inlet protection devices are for drainage areas of one acre or less. Runoff from larger disturbed areas should be routed to a TEMPORARY SEDIMENT TRAP (Std. & Spec. 3.13) or a TEMPORARY SEDIMENT BASIN (Std. & Spec. 3.14).

The best way to prevent sediment from entering the storm sewer system is to stabilize the site as quickly as possible, preventing erosion and stopping sediment at its source.

Stone is utilized as the chief ponding/filtering agent in most of the inlet protection types described in this specification. The various types of "coarse aggregates" which are depicted are able to filter out sediment mainly through slowing down flows directed to the inlet by creating an increased flow path for the stormwater (through void space in the respective stone). The stone filtering medium by no means slows stormwater flowrate as does filter cloth and therefore cannot provide the same degree of filter efficiency when smaller silt and clay particles are introduced into stormwater flows. However, as mentioned earlier, excessive ponding in busy areas adjacent to stormwater inlets is in many cases unacceptable - that is why stone must be utilized with many installations.

Fortunately, in most instances, inlet protection utilizing stone should not be the sole control measure. At the time that storm sewer inlet and associated appurtenances become operational, areas adjacent to the structures are most likely at final grade or will not be altered for extended periods; this is the time when TEMPORARY SEEDING (Std. & Spec. 3.31) and other appropriate controls should be implemented to enhance sediment-loss mitigation. In addition, by varying stone sizes used in the construction of inlet protection, a greater degree of sediment removal can be obtained. As an option, filter cloth can be used with the stone in these devices to further enhance sediment removal. Notably, the potential inconvenience of excessive ponding must be examined with these choices, especially the latter.

Design Criteria

1. The drainage area shall be no greater than 1 acre.
2. The inlet protection device shall be constructed in a manner that will facilitate clean-out and disposal of trapped sediment and minimize interference with construction activities.
3. The inlet protection devices shall be constructed in such a manner that any resultant ponding of stormwater will not cause excessive inconvenience or damage to adjacent areas or structures.
4. Design criteria more specific to each particular inlet protection device will be found on Plates 3.07-1 through 3.07-8.
5. For the inlet protection devices which utilize stone as the chief ponding/filtering medium, a range of stone sizes is offered; VDOT #3, #357, or #5 Coarse Aggregate should be used. The designer/plan reviewer should attempt to get the greatest amount of filtering action possible (by using smaller-sized stone), while not creating significant ponding problems.
6. In all designs which utilize stone with a wire-mesh support as a filtering mechanism, the stone can be completely wrapped with the wire mesh to improve stability and provide easier cleaning.
7. Filter Fabric may be added to any of the devices which utilize "coarse aggregate" stone to significantly enhance sediment removal. The fabric, which must meet the physical requirements noted for "extra strength" found in Table 3.05-B, should be secured between the stone and the inlet (on wire-mesh if it is present). As a result of the significant increase in filter efficiency provided by the fabric, a larger range of stone sizes (VDOT #1, #2 or #3 Coarse Aggregate) may be utilized with such a configuration. The larger stone will help keep larger sediment masses from clogging the cloth. Notably, significant ponding may occur at the inlet if filter cloth is utilized in this manner.

Construction Specifications

1. Silt Fence Drop Inlet Protection
 - a. Silt Fence shall conform to the construction specifications for "extra strength" found in Table 3.05-B and shall be cut from a continuous roll to avoid joints.
 - b. For stakes, use 2 x 4-inch wood (preferred) or equivalent metal with a minimum length of 3 feet.

- c. Space stakes evenly around the perimeter of the inlet a maximum of 3-feet apart, and securely drive them into the ground, approximately 18-inches deep (see Plate 3.07-1).
- d. To provide needed stability to the installation, frame with 2 x 4-inch wood strips around the crest of the overflow area at a maximum of 1½ feet above the drop inlet crest.
- e. Place the bottom 12 inches of the fabric in a trench (see Plate 3.07-1) and backfill the trench with 12 inches of compacted soil.
- f. Fasten fabric securely by staples or wire to the stakes and frame. Joints must be overlapped to the next stake.
- g. It may be necessary to build a temporary dike on the downslope side of the structure to prevent bypass flow.

2. Gravel and Wire Mesh Drop Inlet Sediment Filter

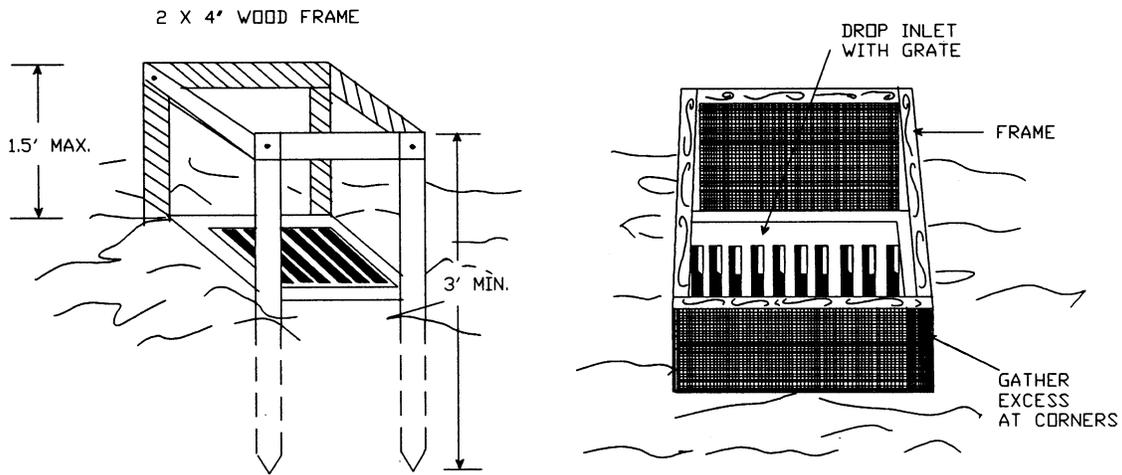
- a. Wire mesh shall be laid over the drop inlet so that the wire extends a minimum of 1 foot beyond each side of the inlet structure. Wire mesh with 1/2-inch openings shall be used. If more than one strip of mesh is necessary, the strips shall be overlapped.
- b. Coarse aggregate shall be placed over the wire mesh as indicated on Plate 3.07-2. The depth of stone shall be at least 12 inches over the entire inlet opening. The stone shall extend beyond the inlet opening at least 18 inches on all sides.
- c. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stones must be pulled away from the inlet, cleaned and/or replaced.

Note: This filtering device has no overflow mechanism; therefore, ponding is likely especially if sediment is not removed regularly. This type of device must never be used where overflow may endanger an exposed fill slope. Consideration should also be given to the possible effects of ponding on traffic movement, nearby structures, working areas, adjacent property, etc.

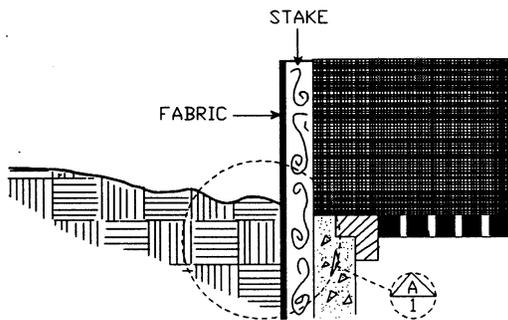
3. Block and Gravel Drop Inlet Sediment Filter

- a. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, with the ends of adjacent blocks abutting. The height of the barrier can be varied, depending on design needs, by stacking combinations of 4-inch, 8-inch and 12-inch wide blocks. The barrier of blocks shall be at least 12-inches high and no greater than 24-inches high.

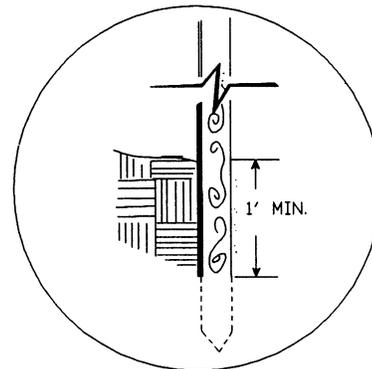
SILT FENCE DROP INLET PROTECTION



PERSPECTIVE VIEWS



ELEVATION OF STAKE AND FABRIC ORIENTATION



DETAIL A

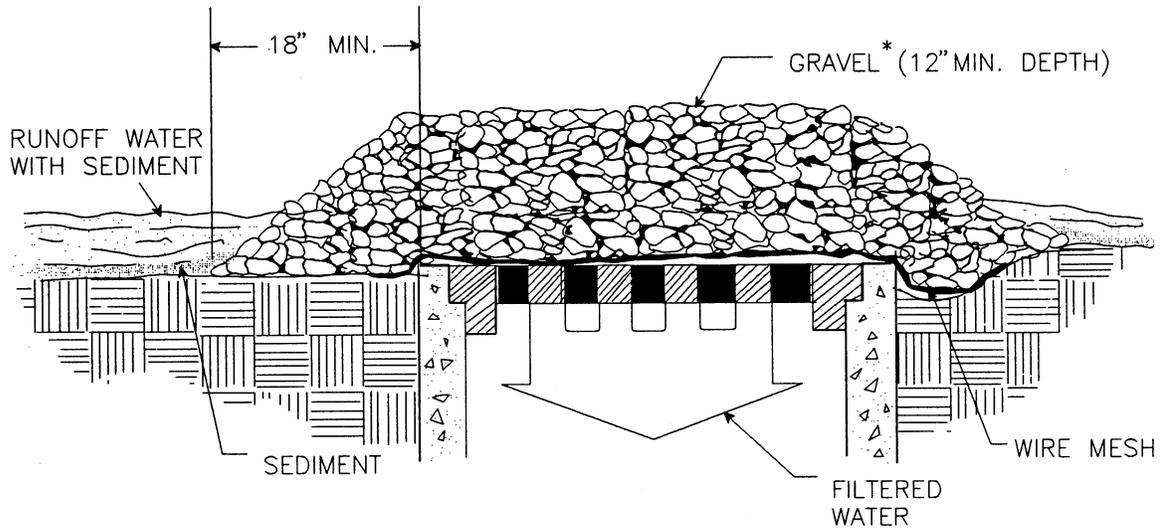
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

Source: N.C. Erosion and Sediment Control Planning and Design Manual, 1988

Plate 3.07-1

GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

- b. Wire mesh shall be placed over the outside vertical face (webbing) of the concrete blocks to prevent stone from being washed through the holes in the blocks. Wire mesh with 1/2-inch openings shall be used.
- c. Stone shall be piled against the wire to the top of the block barrier, as shown in Plate 3.07-3.
- d. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stone must be pulled away from the blocks, cleaned and replaced.

4. Excavated Drop Inlet Sediment Trap

- a. The excavated trap shall be sized to provide a minimum storage capacity calculated at the rate of 134 cubic yards per acre of drainage area. A trap shall be no less than 1-foot nor more than 2-feet deep measured from the top of the inlet structure. Side slopes shall not be steeper than 2:1 (see Plate 3.07-4).
- b. The slope of the basin may vary to fit the drainage area and terrain. Observations must be made to check trap efficiency and modifications shall be made as necessary to ensure satisfactory trapping of sediment. Where an inlet is located so as to receive concentrated flows, such as in a highway median, it is recommended that the basin have a rectangular shape in a 2:1 (length/width) ratio, with the length oriented in the direction of the flow.
- c. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to one-half the design depth of the trap. Removed sediment shall be deposited in a suitable area and in a manner such that it will not erode.

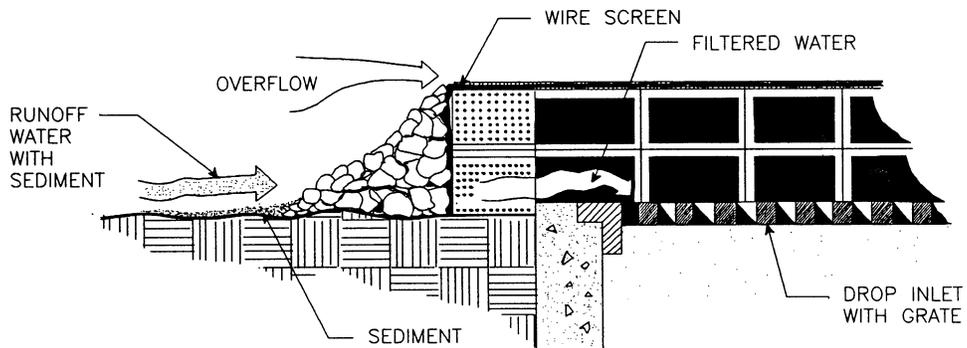
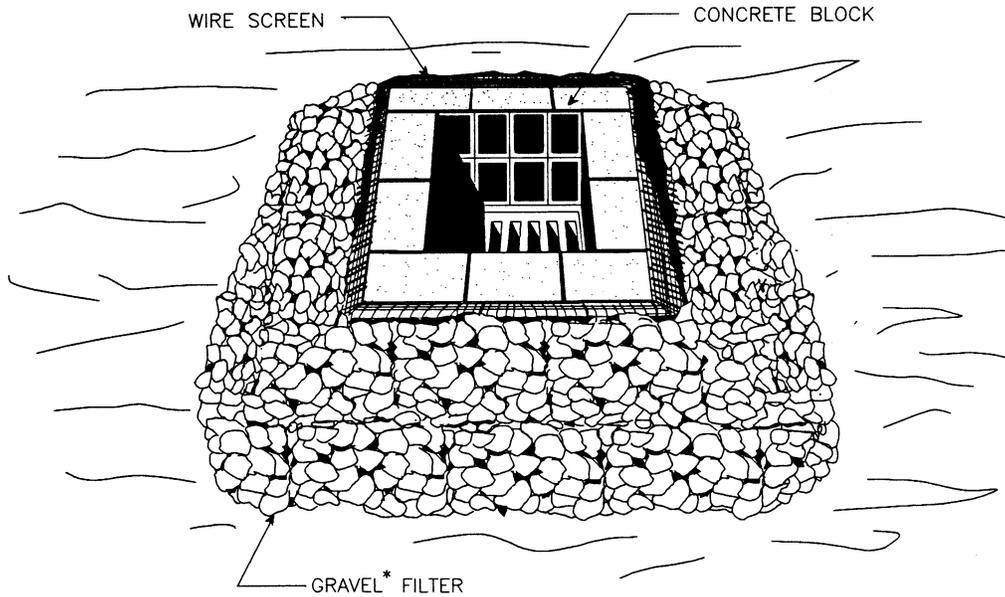
5. Sod Drop Inlet Sediment Filter

- a. Soil shall be prepared and sod installed according to the specifications in Std. & Spec. 3.33, SODDING.
- b. Sod shall be placed to form a turf mat covering the soil for a distance of 4 feet from each side of the inlet structure, as depicted in Plate 3.07-5.

6. Gravel Curb Inlet Sediment Filter

- a. Wire mesh with 1/2-inch openings shall be placed over the curb inlet opening so that at least 12 inches of wire extends across the inlet cover and at least 12 inches of wire extends across the concrete gutter from the inlet opening, as depicted in Plate 3.07-6.

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER

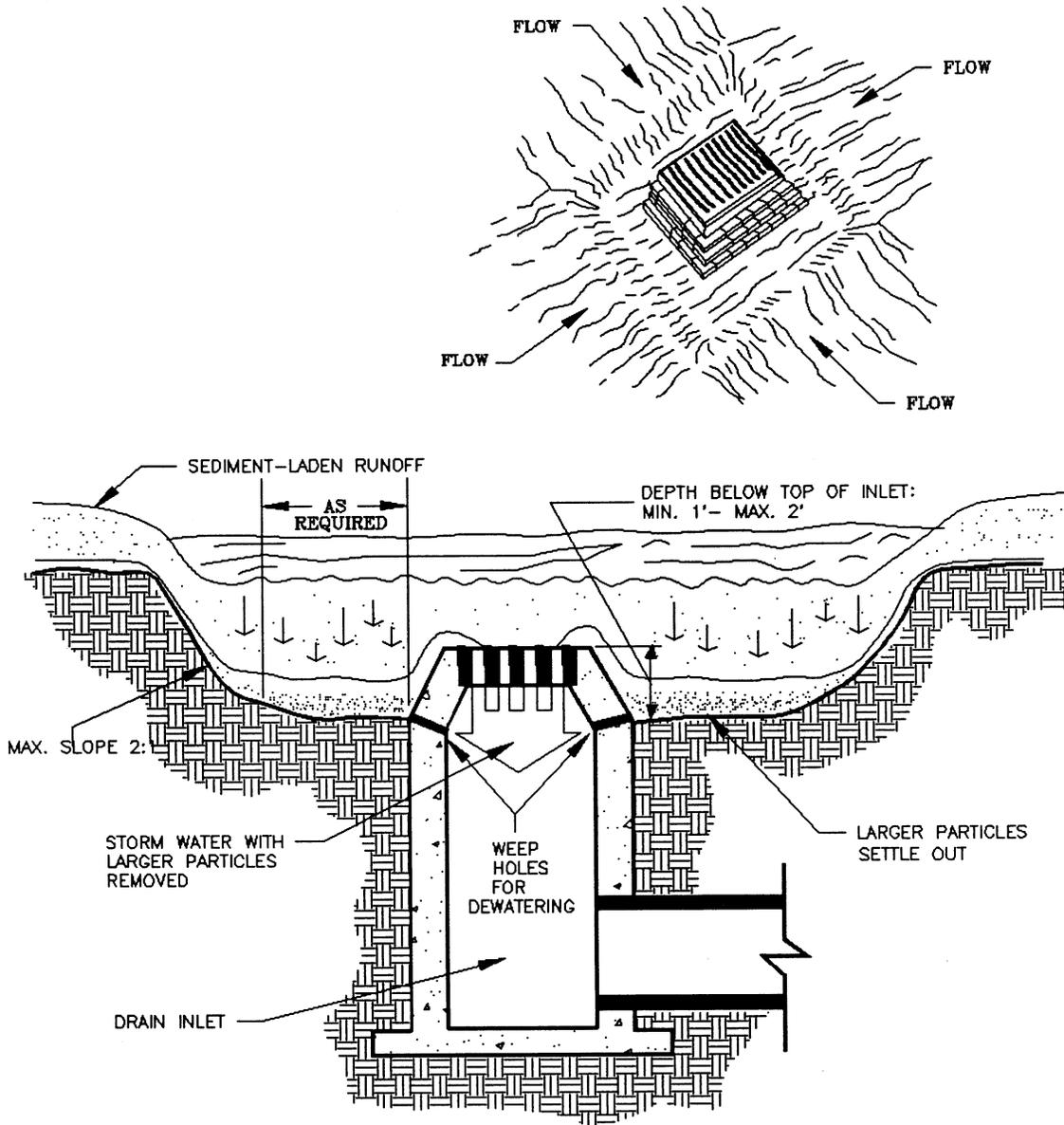


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

EXCAVATED DROP INLET SEDIMENT TRAP



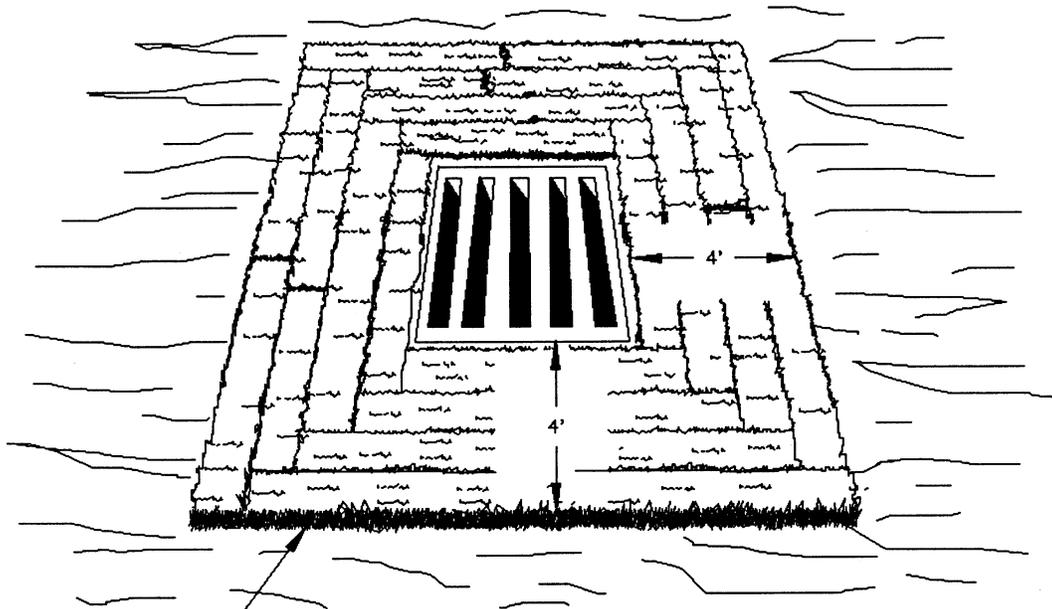
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPABILITY AND EASE OF MAINTENANCE ARE DESIRABLE.

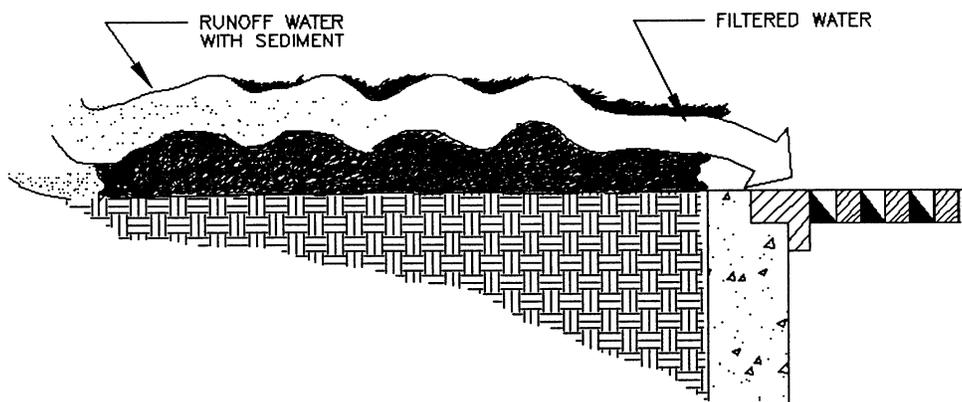
Source: Michigan Soil Erosion and Sediment Control Guidebook, 1975, and USDA-SCS

Plate 3.07-4

SOD DROP INLET SEDIMENT FILTER



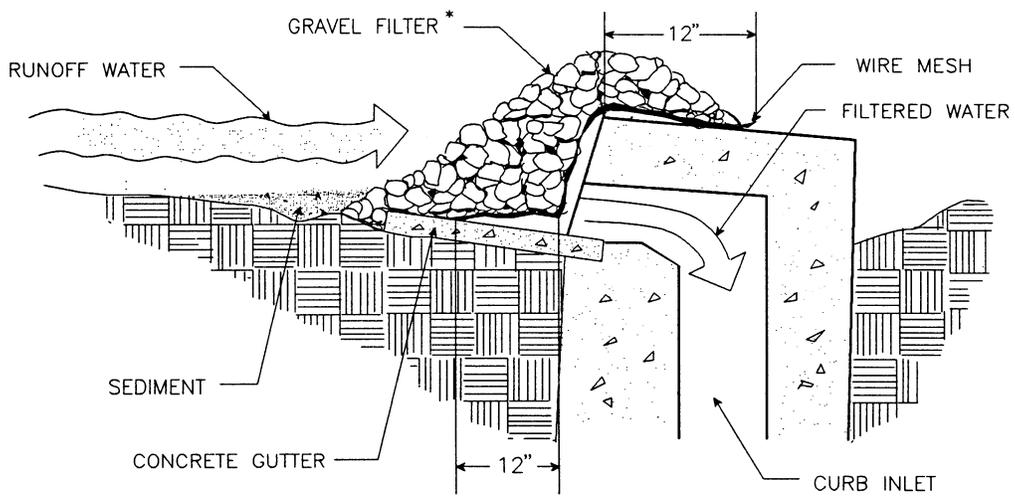
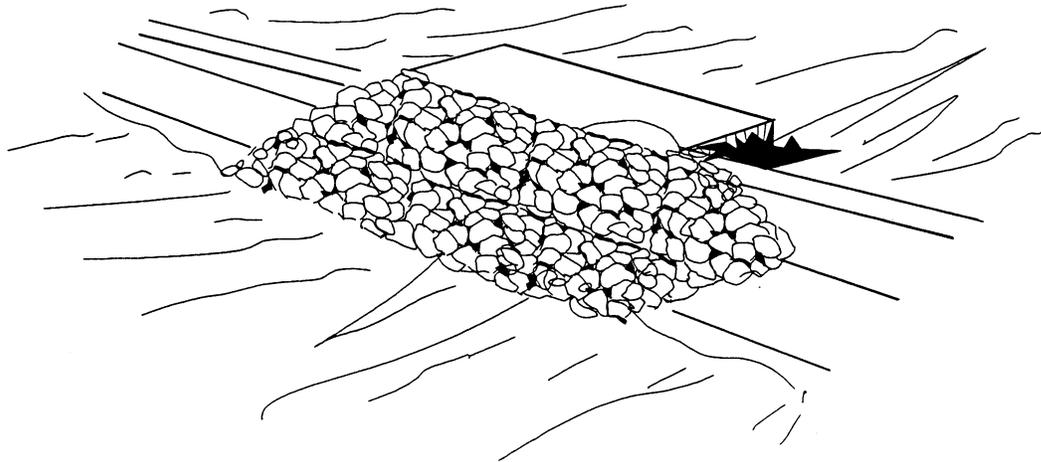
FOUR 1-FOOT WIDE STRIPS OF SOD ON EACH SIDE OF THE DROP INLET



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE ONLY AT THE TIME OF PERMANENT SEEDING, TO PROTECT THE INLET FROM SEDIMENT AND MULCH MATERIAL UNTIL PERMANENT VEGETATION HAS BECOME ESTABLISHED.

GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.

- b. Stone shall be piled against the wire so as to anchor it against the gutter and inlet cover and to cover the inlet opening completely.
- c. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stone must be pulled away from the block, cleaned and replaced.

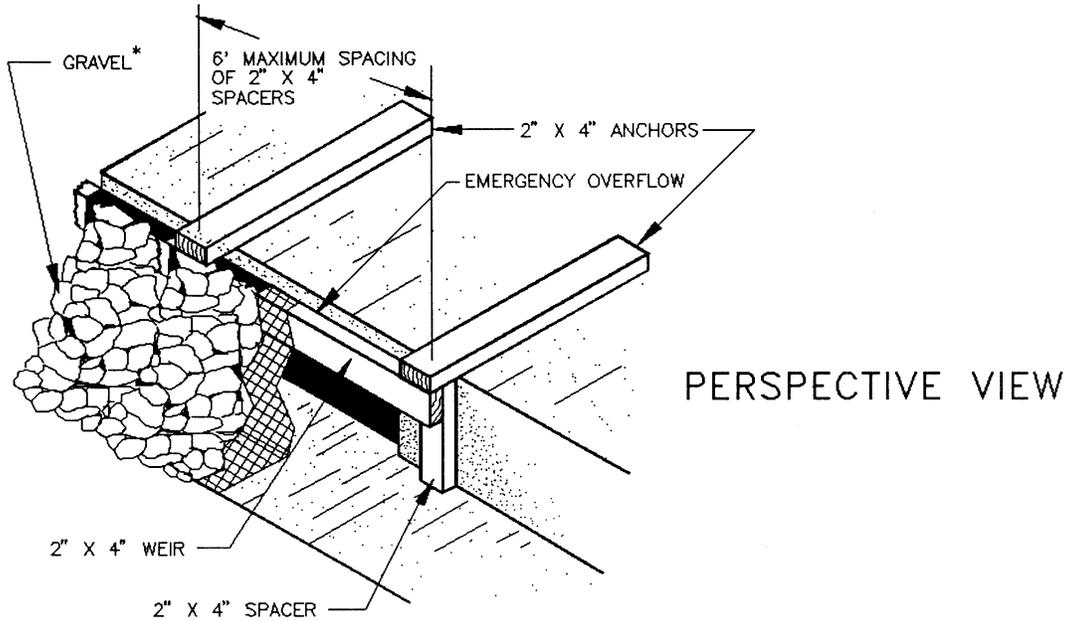
7. Curb Inlet Protection with 2-inch x 4-inch Wooden Weir

- a. Attach a continuous piece of wire mesh (30-inch minimum width x inlet throat length plus 4 feet) to the 2-inch x 4-inch wooden weir (with a total length of throat length plus 2 feet) as shown in Plate 3.07-7. Wood should be "construction grade" lumber.
- b. Place a piece of approved "extra-strength" filter cloth of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2-inch x 4-inch weir.
- c. Securely nail the 2-inch x 4-inch weir to the 9-inch long vertical spacers which are to be located between the weir and inlet face at a maximum 6-foot spacing.
- d. Place the assembly against the inlet throat and nail 2-foot (minimum) lengths of 2-inch x 4-inch board to the top of the weir at spacer locations. These 2-inch x 4-inch anchors shall extend across the inlet tops and be held in place by sandbags or alternate weight.
- e. The assembly shall be placed so that the end spacers are a minimum 1 foot beyond both ends of the throat opening.
- f. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place coarse aggregate over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
- g. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
- h. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

8. Block and Gravel Curb Inlet Sediment Filter

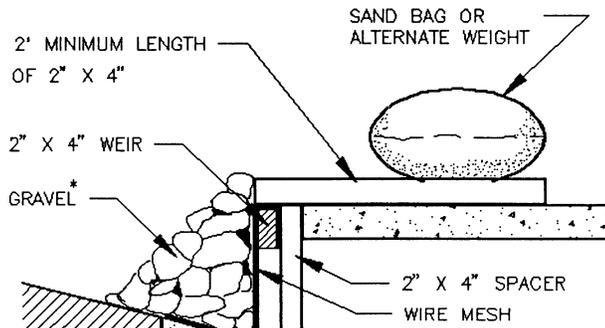
- a. Two concrete blocks shall be placed on their sides abutting the curb at either side of the inlet opening.

CURB INLET PROTECTION WITH 2-INCH X 4-INCH WOODEN WEIR



PERSPECTIVE VIEW

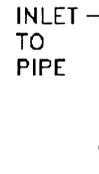
SIDE ELEVATION



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE TO CURB INLETS WHERE A STURDY, COMPACT INSTALLATION IS DESIRED. EMERGENCY OVERFLOW CAPABILITIES ARE MINIMAL, SO EXPECT SIGNIFICANT PONDING WITH THIS MEASURE.

* GRAVEL SHALL BE VDOT COARSE AGGREGATE #3, #357 OR #5



Source: 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control, and USDA-SCS

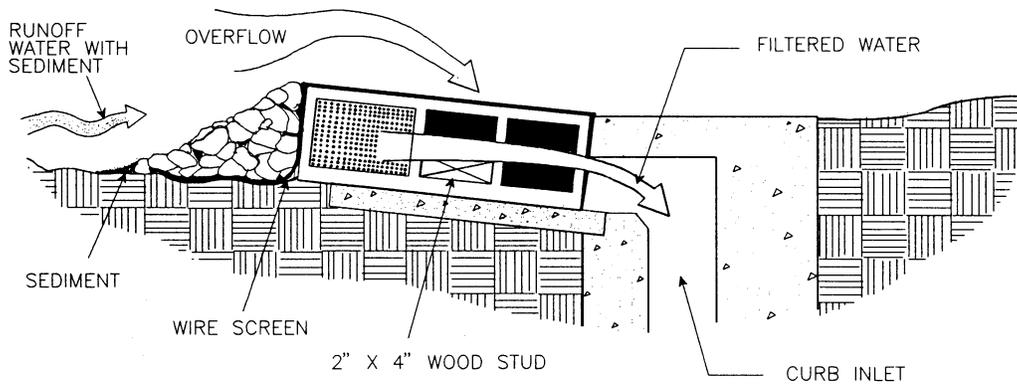
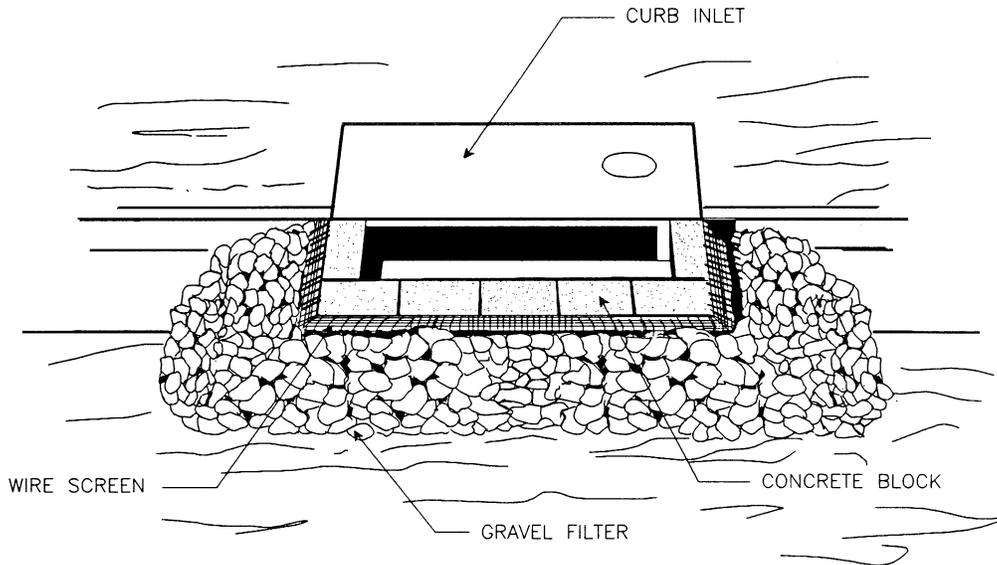
Plate 3.07-7

- b. A 2-inch x 4-inch stud shall be cut and placed through the outer holes of each spacer block to help keep the front blocks in place.
- c. Concrete blocks shall be placed on their sides across the front of the inlet and abutting the spacer blocks as depicted in Plate 3.07-8.
- d. Wire mesh shall be placed over the outside vertical face (webbing) of the concrete blocks to prevent stone from being washed through the holes in the blocks. Wire mesh with 1/2-inch openings shall be used.
- e. Coarse aggregate shall be piled against the wire to the top of the barrier as shown in Plate 3.07-8.
- f. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stone must be pulled away from the blocks, cleaned and/or replaced.

Maintenance

1. The structure shall be inspected after each rain and repairs made as needed.
2. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to one half the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
3. Structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER

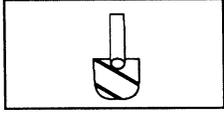


SPECIAL APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE

STD & SPEC 3.08



CULVERT INLET PROTECTION

Definition

A sediment filter located at the inlet to storm sewer culverts.

Purposes

1. To prevent sediment from entering, accumulating in and being transferred by a culvert and associated drainage system prior to permanent stabilization of a disturbed project area.
2. To provide erosion control at culvert inlets during the phase of a project where elevation and drainage patterns change, causing original control measures to be ineffective or in need of removal.



Conditions Where Practice Applies

Where culvert and associated drainage system is to be made operational prior to permanent stabilization of the disturbed drainage area. Different types of structures are applicable to different conditions (see Plates 3.08-1 and 3.08-2).

Planning Considerations

When construction on a project reaches a stage where culverts and other storm sewer appurtenances are installed and many areas are brought to a desired grade, the erosion control measures used in the early stages normally need to be modified or may need to be removed altogether. At that time, there is a need to provide protection at the points where runoff will leave the area via culverts and drop or curb inlets.

Similar to drop and curb inlets, culverts which are made operational prior to stabilization of the associated drainage areas can convey large amounts of sediment to natural drainageways. In case of extreme sediment loading, the pipe or pipe system itself may clog and lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the culvert by using one of the methods noted in this section.

General Guidelines (All Types)

1. The inlet protection device shall be constructed in a manner that will facilitate clean-out and disposal of trapped sediment and minimize interference with construction activities.
2. The inlet protection devices shall be constructed in such a manner that any resultant ponding of stormwater will not cause excessive inconvenience or damage to adjacent areas or structures.
3. Design criteria more specific to each particular inlet protection device will be found in Plates 3.08-1 through 3.08-2.

Design Criteria

1. Silt Fence Culvert Inlet Protection
 - a. No formal design is required.
 - b. Silt fence culvert inlet protection has an expected maximum usable life of three months.
 - c. The maximum area draining to this practice shall not exceed one acre.

2. Culvert Inlet Sediment Trap

- a. Runoff storage requirements shall be in accordance with information outlined under Std. & Spec. 3.13, TEMPORARY SEDIMENT TRAP.
- b. Culvert inlet sediment traps have a maximum expected useful life of 18 months.
- c. The maximum area draining to this practice shall not exceed 3 acres.

Construction Specifications

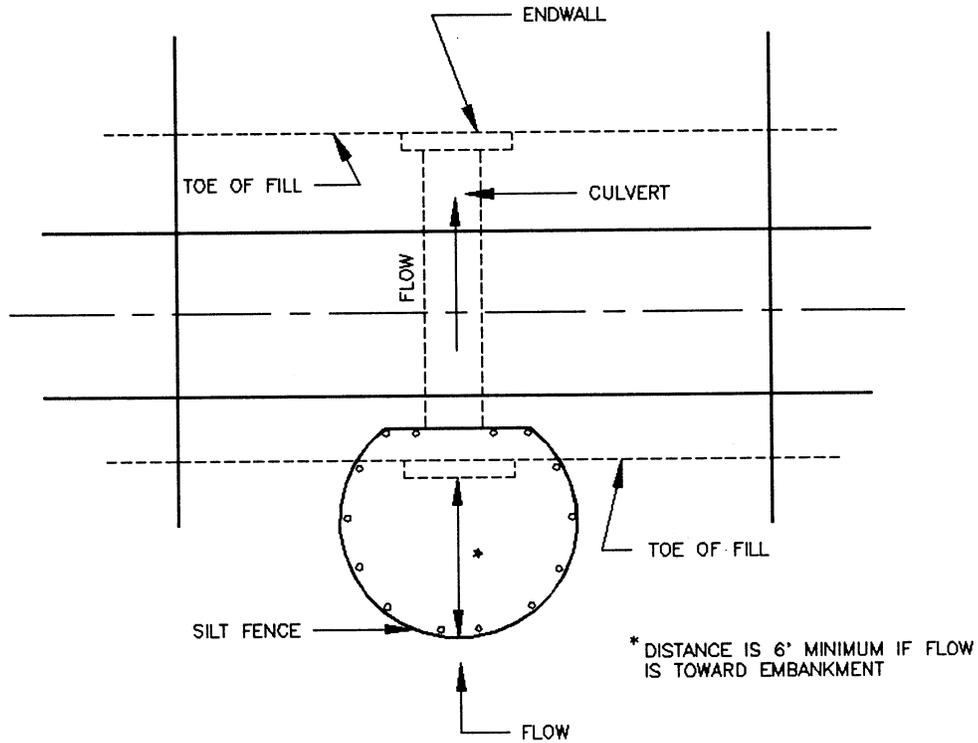
1. Silt Fence Culvert Inlet Protection

- a. The height of the silt fence (in front of the culvert opening) shall be a minimum of 16 inches and shall not exceed 34 inches.
- b. Extra strength filter fabric with a maximum spacing of stakes of 3 feet shall be used to construct the measure.
- c. The placement of silt fence should be approximately 6 feet from the culvert in the direction of incoming flow, creating a "horseshoe" shape as shown in Plate 3.08-1.
- d. If silt fence cannot be installed properly or the flow and/or velocity of flow to the culvert protection is excessive and may breach the structure, the stone combination noted in Plate 3.08-1 should be utilized.

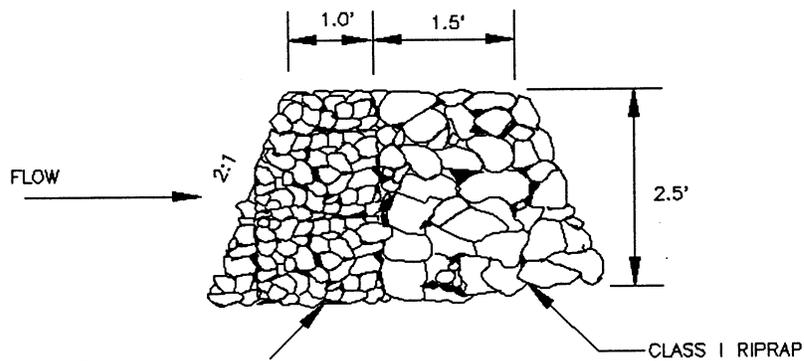
2. Culvert Inlet Sediment Trap

- a. Geometry of the design will be a "horseshoe" shape around the culvert inlet (see Plate 3.08-2).
- b. The toe of riprap (composing the sediment filter dam) shall be no closer than 24" from the culvert opening in order to provide an acceptable emergency outlet for flows from larger storm events.
- c. All other "Construction Specifications" found within Std. & Spec. 3.13, TEMPORARY SEDIMENT TRAP, also apply to this practice.
- e. The proper installation of the culvert inlet sediment trap is a viable substitute for the installation of the TEMPORARY SEDIMENT TRAP.

SILT FENCE CULVERT INLET PROTECTION



OPTIONAL STONE COMBINATION **

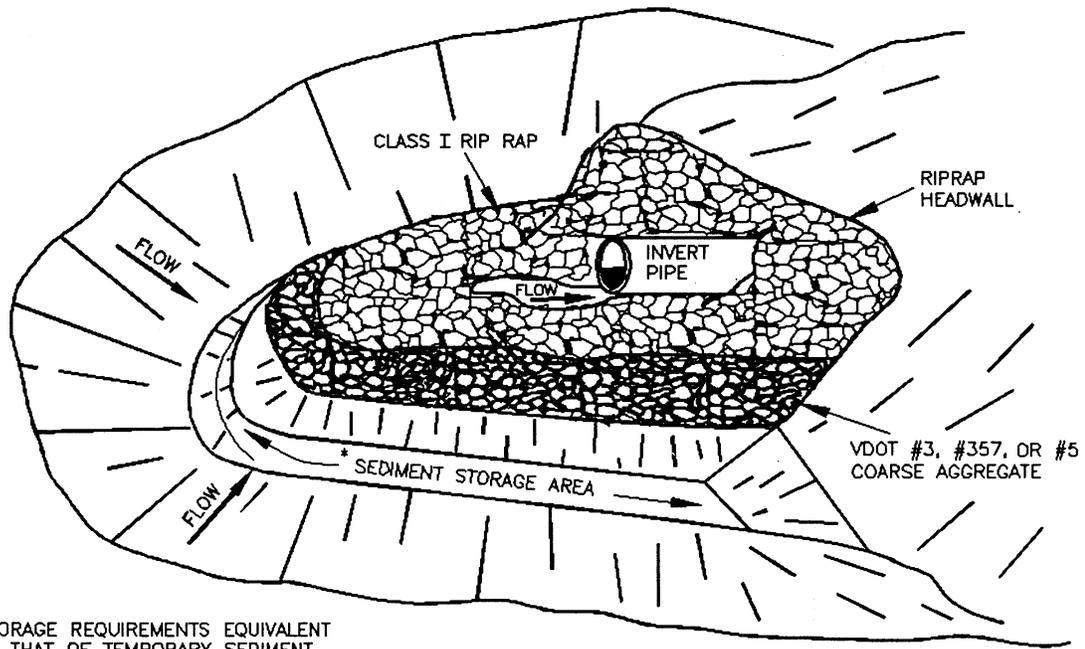


** VDOT #3, #357 OR #5 COARSE AGGREGATE TO REPLACE SILT FENCE IN "HORSESHOE" WHEN HIGH VELOCITY OF FLOW IS EXPECTED

Source: Adapted from VDOT Standard Sheets and Va. DSWC

Plate 3.08-1

CULVERT INLET SEDIMENT TRAP

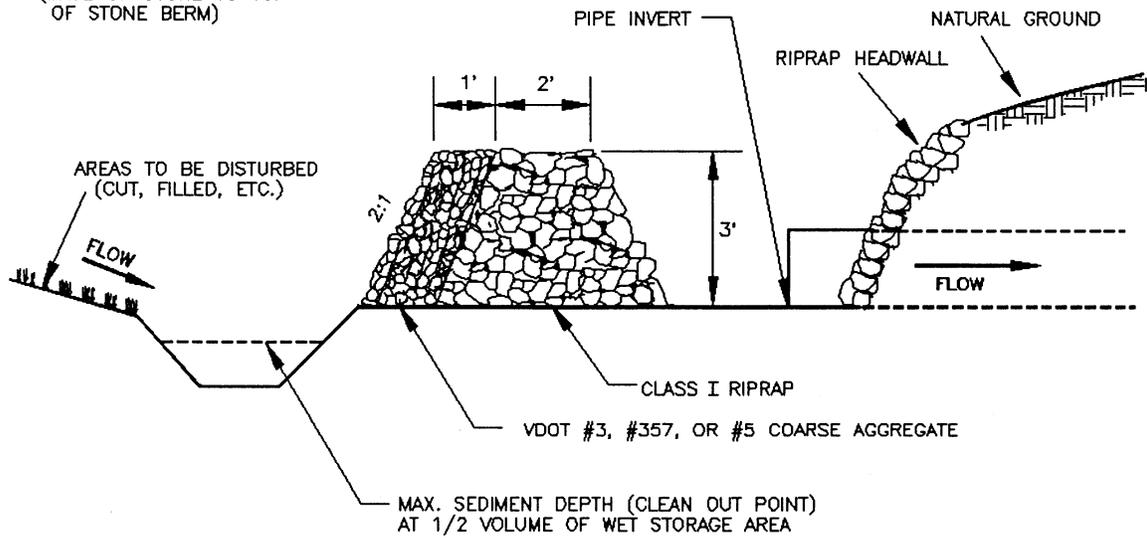


*STORAGE REQUIREMENTS EQUIVALENT TO THAT OF TEMPORARY SEDIMENT TRAP, STD. & SPEC. 3.13

67 C.Y./ACRE WET STORAGE (BELOW BASE OF STONE)

67 C.Y./ACRE DRY STORAGE (BASE OF STONE TO TOP OF STONE BERM)

PERSPECTIVE VIEW

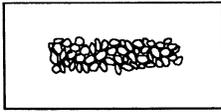


ELEVATION

Maintenance

1. The structure shall be inspected after each rain and repairs made as needed.
2. Aggregate shall be replaced or cleaned when inspection reveals that clogged voids are causing ponding problems which interfere with on-site construction.
3. Sediment shall be removed and the impoundment restored to its original dimensions when sediment has accumulated to one-half the design depth. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode and cause sedimentation problems.
4. Temporary structures shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

STD & SPEC 3.19



RIPRAP

Definition

A permanent, erosion-resistant ground cover of large, loose, angular stone with filter fabric or granular underlining.

Purposes

1. To protect the soil from the erosive forces of concentrated runoff.
2. To slow the velocity of concentrated runoff while enhancing the potential for infiltration.
3. To stabilize slopes with seepage problems and/or non-cohesive soils.



Conditions Where Practice Applies

Wherever soil and water interface and the soil conditions, water turbulence and velocity, expected vegetative cover, etc., are such that the soil may erode under the design flow conditions. Riprap may be used, as appropriate, at stormdrain outlets, on channel banks and/or bottoms, roadside ditches, drop structures, at the toe of slopes, as transition from concrete channels to vegetated channels, etc.

Planning Considerations

Graded vs. Uniform Riprap

Riprap is classified as either graded or uniform. A sample of graded riprap would contain a mixture of stones which vary in size from small to large. A sample of uniform riprap would contain stones which are all fairly close in size.

For most applications, graded riprap is preferred to uniform riprap. Graded riprap forms a flexible self-healing cover, while uniform riprap is more rigid and cannot withstand movement of the stones. Graded riprap is cheaper to install, requiring only that the stones be dumped so that they remain in a well-graded mass. Hand or mechanical placement of individual stones is limited to that necessary to achieve the proper thickness and line. Uniform riprap requires placement in a more or less uniform pattern, requiring more hand or mechanical labor.

Riprap sizes can be designed by either the diameter or the weight of the stones. It is often misleading to think of riprap in terms of diameter, since the stones should be angular instead of spherical. However, it is simpler to specify the diameter of an equivalent size of spherical stone. Table 3.19-A lists some typical stones by weight, spherical diameter and the corresponding rectangular dimensions. These stone sizes are based upon an assumed specific weight of 165 lbs./ft³.

Since graded riprap consists of a variety of stone sizes, a method is needed to specify the size range of the mixture of stone. This is done by specifying a diameter of stone in the mixture for which some percentage, by weight, will be smaller. For example, d₈₅ refers to a mixture of stones in which 85% of the stone by weight would be smaller than the diameter specified. Most designs are based on d₅₀. In other words, the design is based on the average size of stone in the mixture. Table 3.19-B lists VDOT standard graded riprap sizes by diameter the weight of the stone.

To ensure that stone of substantial weight is used when implementing riprap structures, specified weight ranges for individual stones and composition requirements should be followed. Such guidelines will help to prevent inadequate stone from being used in construction of the measures and will promote more consistent stone classification statewide. Table 3.19-C notes these requirements.

TABLE 3.19-A

SIZE OF RIPRAP STONES

Weight (lbs.)	Mean Spherical Diameter (ft.)	Angular Shape:	
		Length (ft.)	Width, Height (ft.)
50	0.8	1.4	0.5
100	1.1	1.75	0.6
150	1.3	2.0	0.67
300	1.6	2.6	0.9
500	1.9	3.0	1.0
1,000	2.2	3.7	1.25
1,500	2.6	4.7	1.5
2,000	2.75	5.4	1.8
4,000	3.6	6.0	2.0
6,000	4.0	6.9	2.3
8,000	4.5	7.6	2.5
20,000	6.1	10.0	3.3

Source: VDOT Drainage Manual

Sequence of Construction

Since riprap is used where erosion potential is high, construction must be sequenced so that the riprap is put in place with the minimum possible delay. Disturbance of areas where riprap is to be placed should be undertaken only when final preparation and placement of the riprap can follow immediately behind the initial disturbance. Where riprap is used for outlet protection, the riprap should be placed before or in conjunction with the construction of the pipe or channel so that it is in place when the pipe or channel begins to operate.

Design Criteria

Gradation

The riprap shall be composed of a well-graded mixture down to the one-inch size particle such that 50% of the mixture by weight shall be larger than the d_{50} size as determined from the design procedure. A well-graded mixture as used herein is defined as a mixture composed primarily of the larger stone sizes but with a sufficient mixture of other sizes to fill the progressively smaller voids between the stones. The diameter of the largest stone size in such a mixture shall be $1\frac{1}{2}$ times the d_{50} size.

TABLE 3.19-B
GRADED RIPRAP - DESIGN VALUES

<u>Riprap Class</u>	<u>D₁₅ Weight (lbs.)</u>	<u>Mean D₁₅ Spherical Diameter (ft.)</u>	<u>Mean D₅₀ Spherical Diameter (ft.)</u>
Class AI	25	0.7	0.9
Class I	50	0.8	1.1
Class II	150	1.3	1.6
Class III	500	1.9	2.2
Type I	1,500	2.6	2.8
Type II	6,000	4.0	4.5

Source: VDOT Drainage Manual

The designer, after determining the riprap size that will be stable under the flow conditions, shall consider that size to be a minimum size and then, based on riprap gradations actually available in the area, select the size or sizes that equal or exceed the minimum size. The possibility of damage by children shall be considered in selecting a riprap size, especially if there is nearby water or a gully in which to toss the stones.

Thickness

The minimum thickness of the riprap layer shall be 2 times the maximum stone diameter, but not less than 6 inches.

Quality of Stone

Stone for riprap shall consist of field stone or rough unhewn quarry stone of approximately rectangular shape. The stone shall be hard and angular and of such quality that it will not disintegrate on exposure to water or weathering and it shall be suitable in all respects for the purpose intended. The specific gravity of the individual stones shall be at least 2.5.

Rubble concrete may be used provided it has a density of at least 150 pounds per cubic foot, and otherwise meets the requirement of this standard and specification.

TABLE 3.19-C
GRADED RIPRAP - WEIGHT ANALYSIS

<u>Riprap Class/Type</u>	<u>Weight Range* (lbs.)</u>	<u>Requirements for Stone Mixture</u>
Class AI	25-75	Max. 10% > 75 lbs.
Class I	50-150	60% > 100 lbs.
Class II	150-500	50% > 300 lbs.
Class III	500-1,500	50% > 900 lbs.
Type I	1,500-4,000	Av. wt. = 2,000 lbs.
Type II	6,000-20,000	Av. wt. = 8,000 lbs.

* In all classes/types of riprap, a maximum 10% of the stone in the mixture may weigh less than the lower end of the range.

Source: Adapted from VDOT Road and Bridge Specifications

Filter Fabric Underlining

A lining of engineering filter fabric (geotextile) shall be placed between the riprap and the underlying soil surface to prevent soil movement into or through the riprap. Table 3.19-D notes the minimum physical properties of the filter fabric.

Filter fabric shall not be used on slopes greater than 1½:1 as slippage may occur and should be used in conjunction with a layer of coarse aggregate (granular filter blanket is described below) when the riprap to be placed is Class II or larger.

Granular Filter

Although the filter cloth underlining or bedding is the preferred method of installation, a granular (stone) bedding is a viable option when the following relationship exists:

$$\frac{d_{15} \text{ filter}}{d_{85} \text{ base}} < 5 < \frac{d_{15} \text{ filter}}{d_{15} \text{ base}} < 40$$

and,

$$\frac{d_{50} \text{ filter}}{d_{50} \text{ base}} < 40$$

In these relationships, filter refers to the overlying material and base refers to the underlying material. The relationships must hold between the filter material and the base material and between the riprap and the filter material. In some cases, more than one layer of filter material may be needed. Each layer of filter material should be approximately 6-inches thick.

TABLE 3.19-D

REQUIREMENTS FOR FILTER FABRIC USED WITH RIPRAP

<u>Physical Property</u>	<u>Test Method</u>	<u>Requirements</u>
Equivalent Opening Size	Corps of Engineers CWO 2215-77	Equal or greater than U.S. No. 50 sieve
Tensile Strength* @ 20% (maximum)	VTM-52	30 lbs./linear in. (minimum)
Puncture Strength	ASTM D751*	80 lbs. (minimum)

* Tension testing machine with ring clamp, steel ball replaced with 5/16 diameter solid steel cylinder with hemispherical tip centered within the ring clamp.

Seams shall be equal in strength to basic material.

Additional fabric material or non-corrosive steel wire may be incorporated into the fabric to increase overall strength.

Source: VDOT Road and Bridge Specifications

Riprap at Outlets

Design criteria for sizing the stone and determining the dimensions of riprap pads used at the outlet of drainage structure are contained in OUTLET PROTECTION (Std. & Spec. 3.18). A filter fabric underlining is required for riprap used as outlet protection.

Riprap for Channel Stabilization

Riprap for channel stabilization shall be designed to be stable for the condition of bank-full flow in the reach of channel being stabilized. The design procedure in Appendix 3.19-a, which is extracted from the Federal Highway Administration's Design of Stable Channels with Flexible Linings (82), shall be used. This method establishes the stability of the rock material relative to the forces exerted upon it.

Riprap shall extend up the banks of the channel to a height equal to the maximum depth of flow or to a point where vegetation can be established to adequately protect the channel.

The riprap size to be used in a channel bend shall extend upstream from the point of curvature and downstream from the bottom of the channel to a minimum depth equal to the thickness of the blanket and shall extend across the bottom of the channel the same distance (see Plate 3.19-1).

Freeboard and Height of Bank

For riprapped and other lined channels, the height of channel lining above the water surface should be based on the size of the channel, the flow velocity, the curvature, inflows, wind action, flow regulation, etc.

The height of the bank above the water surface varies in a similar manner, depending on the above factors plus the type of soil.

Plate 3.19-2 is based on information developed by the U.S. Bureau of Reclamation for average freeboard and bank height in relation to channel capacity. This chart should be used by the designer to obtain a minimum freeboard for placement of riprap and top of bank.

Riprap for Slope Stabilization

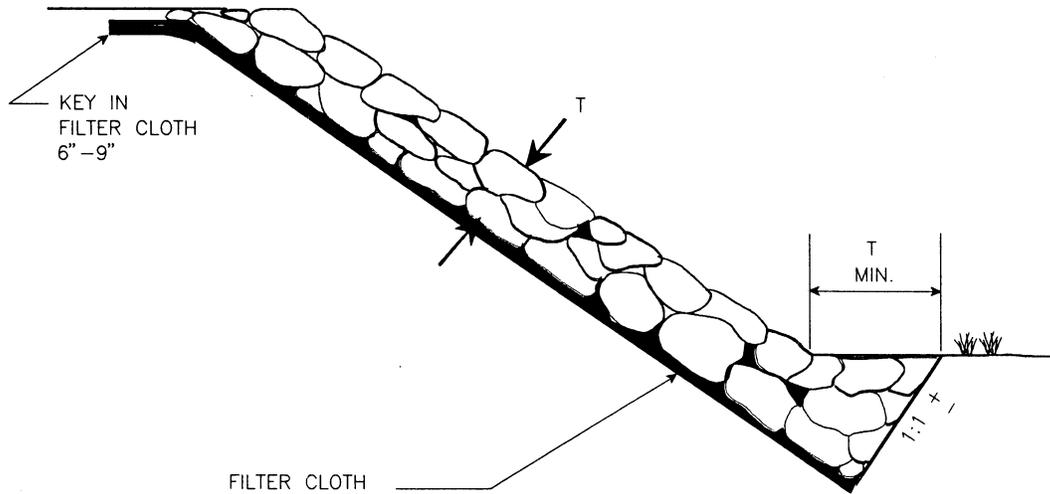
Riprap for slope stabilization shall be designed so that the natural angle of repose of the stone mixture is greater than the gradient of the slope being stabilized (see Plate 3.19-5).

Riprap for Lakes and Ponds Subject to Wave Action

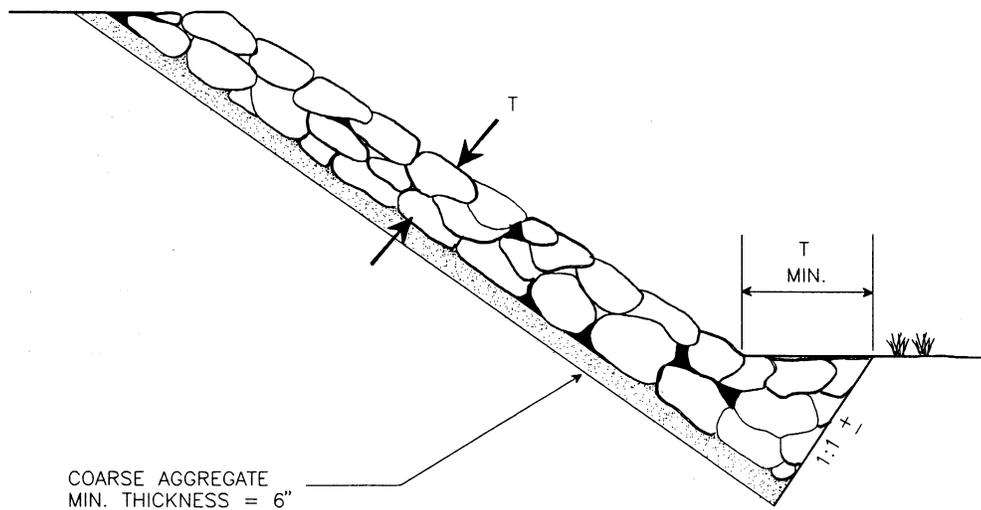
Riprap used for shoreline protection on lakes and ponds may be subject to wave action. The waves affecting the shoreline may be wind-driven or created by boat wakes. Consult

TOE REQUIREMENTS FOR BANK STABILIZATION

FILTER CLOTH UNDERLINER (PREFERRED)



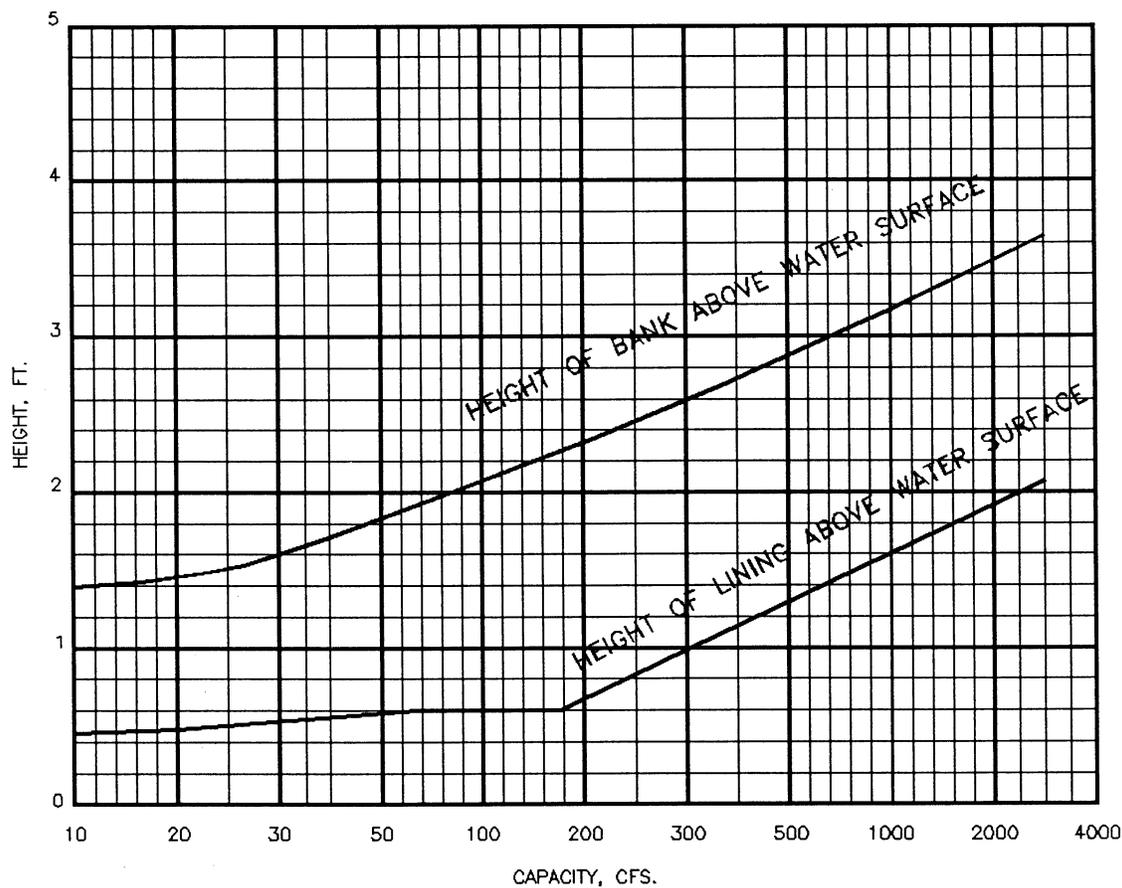
GRANULAR FILTER



Source: Adapted from VDOT Drainage Manual

Plate 3.19-1

RECOMMENDED FREEBOARD AND HEIGHT OF BANK OF LINED CHANNELS



Source: U. S. Bureau of Reclamation

Plate 3.19-2

the latest edition of the VDOT Drainage Manual ("Design of Slope Protection to Resist Wave Action") for specific design criteria in determining the required size of stones and the design wave height for such an installation. Use the equations in Appendix 3.19-b to calculate other pertinent design parameters. For more in-depth design criteria concerning these installations, see the U.S. Army Corps of Engineers' Shore Protection Manual (59).

Riprap for Abrupt Channel Contractions

Refer to latest edition of VDOT Drainage Manual.

Riprap for Installations Subject to Tidal and Wave Action

The design of riprap structures for tidal areas is beyond the scope of the VESCL and VESCR. The DSWC's Shoreline Programs Bureau provides advice regarding minimum design parameters for these installations. Notably, a riprap design for shoreline protection in tidal areas must meet all applicable state and federal requirements and should be carried out by a qualified professional.

Construction Specifications

Subgrade Preparation: The subgrade for the riprap or filter shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density approximately that of the surrounding undisturbed material. Brush, trees, stumps and other objectionable material shall be removed.

Filter Fabric or Granular Filter: Placement of the filter fabric should be done immediately after slope preparation. For granular filters, the stone should be spread in a uniform layer to the specified depth (normally 6 inches). Where more than one layer of filter material is used, the layer should be spread so that there is minimal mixing of the layers.

When installing geotextile filter cloths, the cloth should be placed directly on the prepared slope. The edges of the sheets should overlap by at least 12 inches. Anchor pins, 15 inches long, should be spaced every 3 feet along the overlap. The upper and lower ends of the cloth should be buried at least 12 inches. Care should be taken not to damage the cloth when placing the riprap. If damage occurs, that sheet should be removed and replaced. For large stone (Class II or greater), a 6-inch layer of granular filter will be necessary to prevent damage to the cloth.

Stone Placement: Placement of riprap should follow immediately after placement of the filter. The riprap should be placed so that it produces a dense well-graded mass of stone with a minimum of voids. The desired distribution of stones throughout the mass may be obtained by selective loading at the quarry, controlled dumping of successive loads during final placing, or by a combination of these methods. The riprap should be placed to its full thickness in one operation. The riprap should not be placed in layers. The riprap should not be placed by dumping into chutes or similar methods which are likely to cause

segregation of the various stone sizes. Care should be taken not to dislodge the underlying material when placing the stones.

The finished slope should be free of pockets of small stone or clusters of large stones. Hand placing may be necessary to achieve the required grades and a good distribution of stone sizes. Final thickness of the riprap blanket should be within plus or minus 1/4 of the specified thickness.

Maintenance

Once a riprap installation has been completed, it should require very little maintenance. It should, however, be inspected periodically to determine if high flows have caused scour beneath the riprap or filter fabric or dislodged any of the stone. Care must be taken to properly control sediment-laden construction runoff which may drain to the point of the new installation. If repairs are needed, they should be accomplished immediately.

APPENDIX 3.19-a

RIPRAP DESIGN IN CHANNEL

The design method described below is adapted from Hydraulic Engineering Circular No. 15 of the Federal Highway Administration. It is applicable to both straight and curved sections of channel where the flow is tangent to the bank of the channel.

Tangent Flow - Federal Highway Administration Method

This design method determines a stable rock size for straight and curved sections of channels. It is assumed that the shape, depth of flow, and slope of the channel are known. A stone size is chosen for the maximum depth of flow. If the sides of the channel are steeper than 3:1, the stone size must be modified accordingly. The final design size will be stable on both sides of the channel and the bottom.

1. Enter Plate 3.19-3 with the maximum depth of flow (feet) and channel slope (feet/foot). Where the two lines intersect, choose the d_{50} size of stone. (Select the d_{50} for the diagonal line above the point of intersection).
2. If channel side slopes are steeper than 3:1, continue with step 3; if not, the procedure is complete.
3. Enter Plate 3.19-4 with the side slope and the base width to maximum depth ratio (B/d). Where the two lines intersect, move horizontally left to read K_1 .
4. Determine from Plate 3.19-5 the angle of repose for the d_{50} size of stone and the side slope of the channel. (Use 42° for d_{50} greater than 1.0. Do not use riprap on slopes steeper than the angle of repose for the size of stone).
5. Enter Plate 3.19-6 with the side slope of the channel and the angle of repose for the d_{50} size of stone. Where the two lines intersect, move vertically down to read k_2 .
6. Compute $d_{50} \times K_1/K_2 = d'_{50}$ to determine the correct size stone for the bottom and side slopes of straight sections of channel.

For Curved Sections of Channel

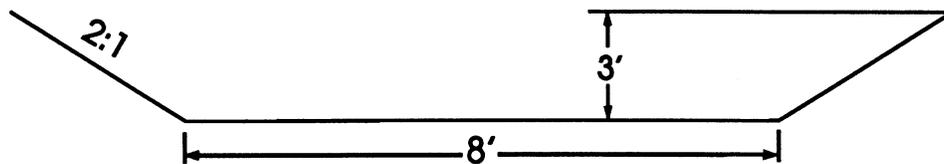
1. Compute the radius of the curve (R_o), measured at the outside edge of the bottom.
2. Compute the ratio of the top width of the water surface (B_s) to the radius of the curve (R_o), B_s/R_o .
3. Enter Plate 3.19-7 with the ratio B_s/R_o . Move vertically until the curve is intersected. Move horizontally left to read K_3 .

4. Compute $d'_{50} \times K_3 = d_{50c}$ to determine the correct size stone for bottom and side slopes of the curved sections of channel.

Example Problem

Given:

A trapezoidal channel 3 feet deep, 8 foot bottom width, 2:1 side slopes, and a 2% slope.



Calculate:

A stable riprap size for the bottom and side slopes of the channel.

Solution:

1. From Plate 3.19-3, for a 3-foot-deep channel on a 2% grade, $d_{50} = 0.75$ feet or 9 inches.
2. Since the side slopes are steeper than 3:1, continue with step 3.
3. From Plate 3.19-4, $B/d = 8/3 = 2.67$, $Z = 2$, $K_1 = 0.82$.
4. From Plate 3.19-5, for $d_{50} = 9$ inches, $\theta = 41^\circ$.
5. From Plate 3.19-6, for $Z = 2$ and $\theta = 41^\circ$, $K_2 = 0.73$.
6. $d_{50} \times K_1/k_2 = d'_{50} = 0.75 \times 0.82/0.73 = 0.84$ feet.
 $0.84 \text{ feet} \times \frac{12 \text{ inches}}{1 \text{ foot}} = 10.08$. Use $d'_{50} = 10$ inches.

Given:

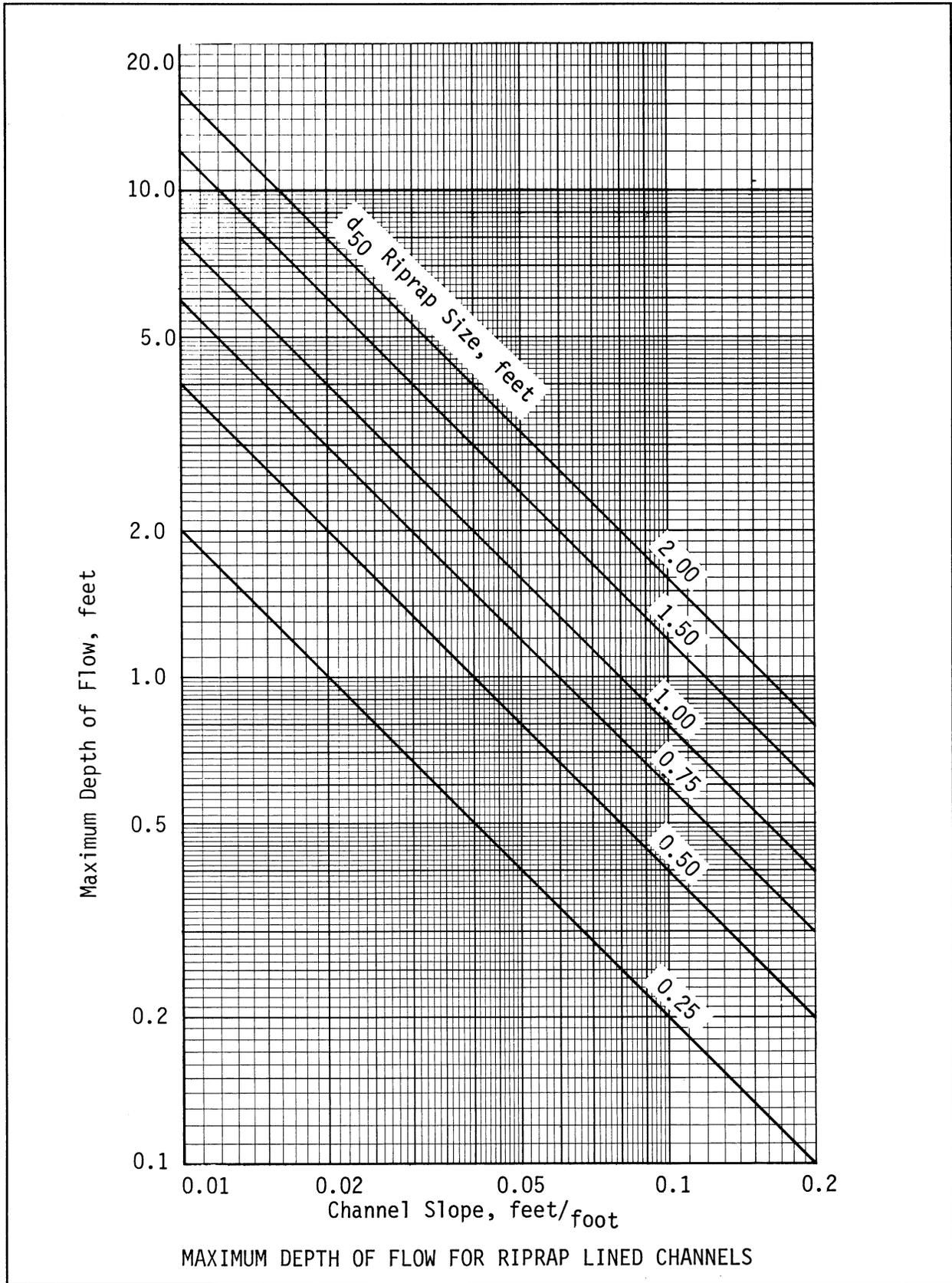
The preceding channel has a curved section with a radius of 50 feet.

Calculate:

A stable riprap size for the bottom and side slopes of the curved section of channel.

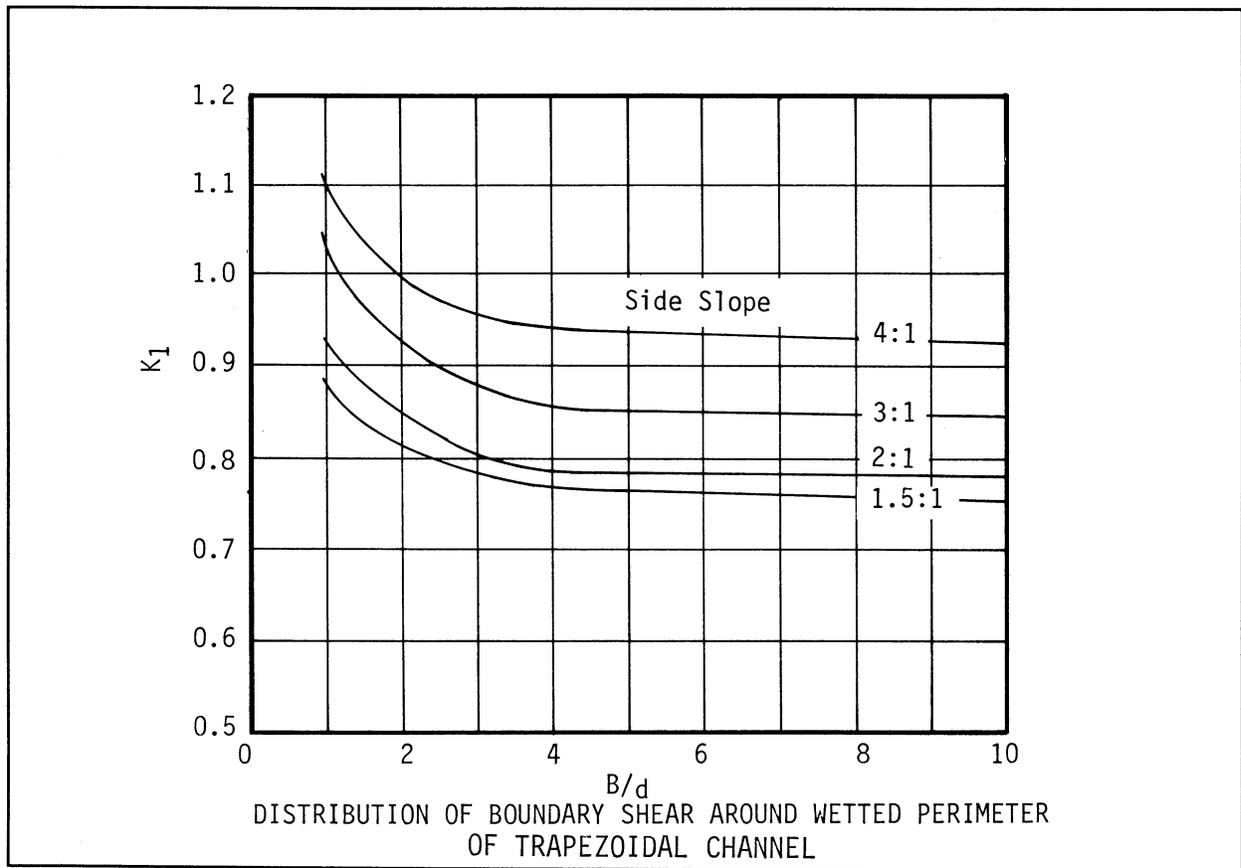
Solution:

1. $R_o = 50$ feet
2. $B_s/R_o = 20/50 = 0.40$
3. From Plate 3.19-7, for $B_s/R_o = 0.40$, $K_3 = 1.1$
4. $d'_{50} \times K_3 = 0.84 \times 1.1 = 0.92$ feet
 0.92 feet $\times \frac{12 \text{ inches}}{1 \text{ foot}} = 11.0$.



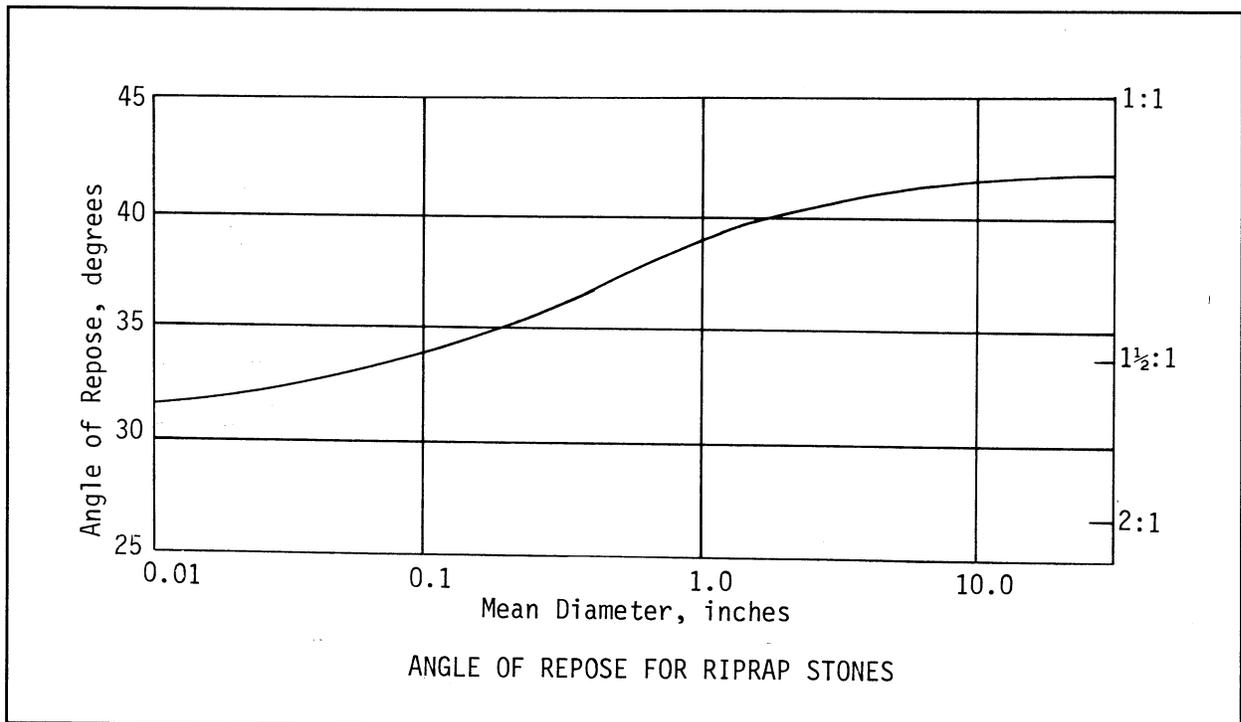
Source: VDOT Drainage Manual

Plate 3.19-3



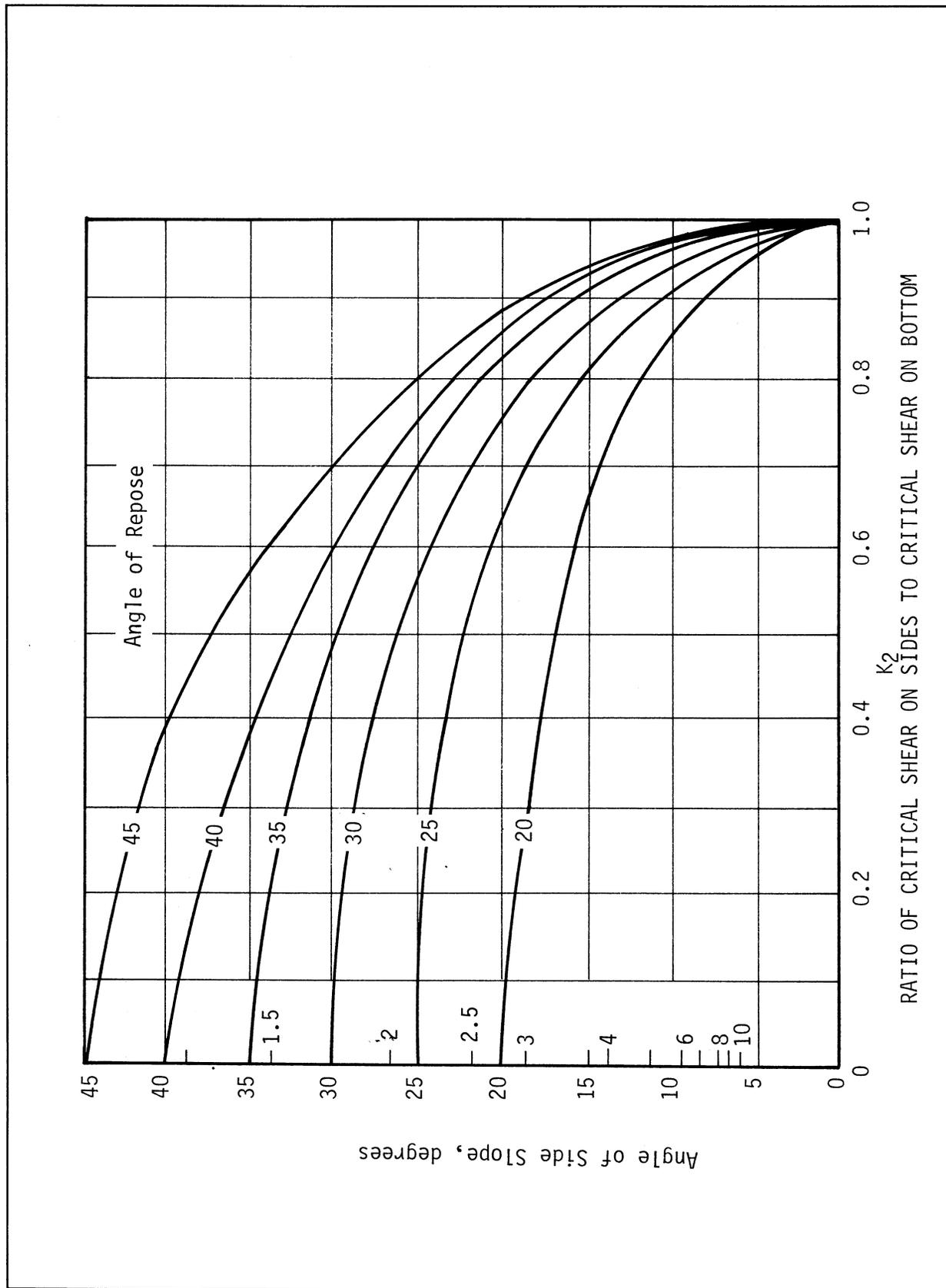
Source: VDOT Drainage Manual

Plate 3.19-4



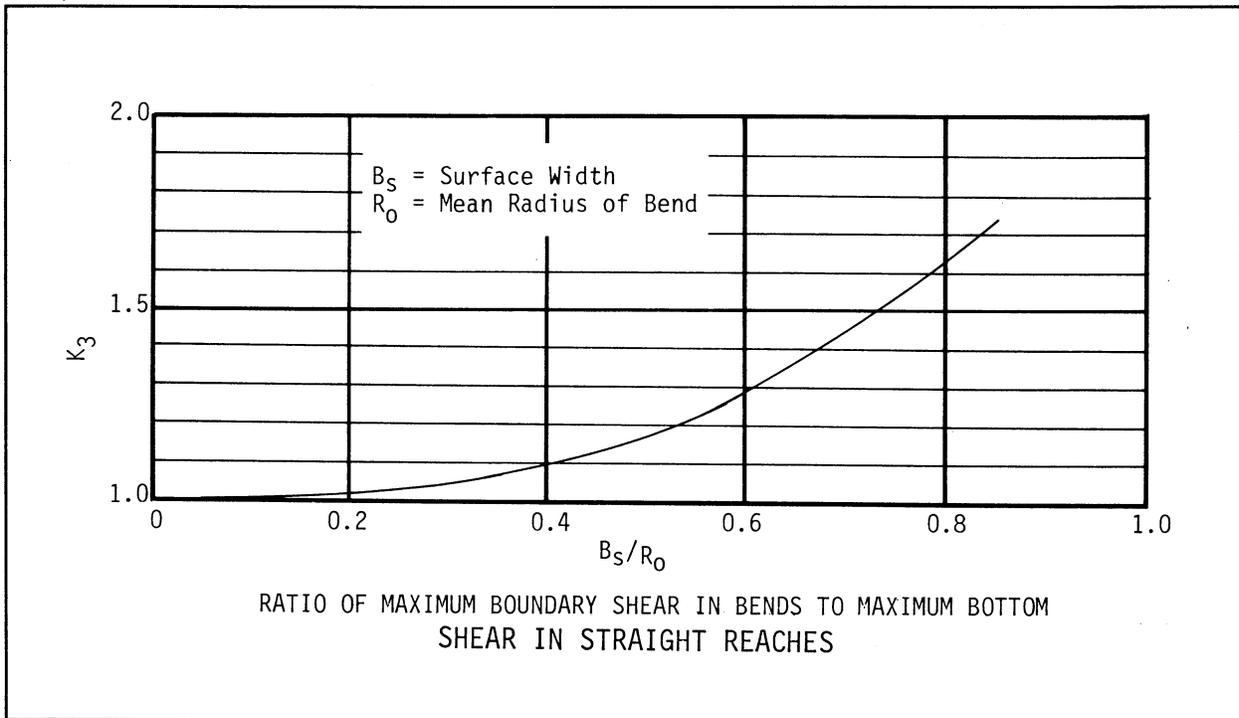
Source: VDOT Drainage Manual

Plate 3.19-5



Source: VDOT Drainage Manual

Plate 3.19-6



Source: VDOT Drainage Manual

Plate 3.19-7

APPENDIX 3.19-b

**RIPRAP DESIGN EQUATIONS FOR LAKES
AND PONDS SUBJECT TO WAVE ACTION**

In many instances, riprap is installed along the shoreline of nontidal ponds and lakes in order to protect them from the continual scour of wind-driven waves. The following methods/equations will produce minimum design parameters for size of stone, depth of buried toe (or width of riprap apron) and height of structure above average water level.

- I. **Size of Riprap Required** - See VDOT Drainage Manual ("Design of Slope Protection to Resist Wave Action").
- II. **DWH (Design Wave Height)** - See VDOT Drainage Manual ("Design of Slope Protection to Resist Wave Action") or U.S. Army Corps of Engineers' Shore Protection Manual.
- III. **Depth of Buried Toe** = DWH at design wind speed.
- IV. **Width of Riprap Apron (Alternative to Buried Toe)** = $DWH \times 2$
- V. **Height of Structure (Above the Average Water Level)** = $DWH \times 1.5$

Street Sweeping - FY 2014

Street Name	From	To	Center Lane Miles	Lane Miles Swept	Date Swept #1	Date Swept #2	Date Swept #3
A AVE	CEDAR LA	WAKEFIELD AVE	0.13	0.26	4/10/14		
ADAMS AVE	GEORGE AVE	HARGROVE AVE	0.05	0.10	5/13/14		
ANGUS LA	LONGHORN DR	JERSEY CT	0.08	0.16	6/5/14		
APPOMATTOX CT	APPOMATTOX DR	CUL DE SAC	0.06	0.12	5/26/14		
APPOMATTOX DR	COVINGTON RD	CUL DE SAC	0.16	0.32	5/26/14		
ARCHER AVE	BOULEVARD	DUNN ST	0.15	0.30	4/24/14		
ARCHER AVE	RT 1/301	RT 1/301	0.11	0.22	4/24/14		
ARLINGTON AVE	VIRGINIA AVE	BOULEVARD	0.06	0.12	4/24/14		
ASH AVE	HEMLOCK AVE	BOULEVARD	0.07	0.14	5/13/14		
ASHBY AVE	BOULEVARD	DEAD END	0.21	0.42	5/13/14		
ATLANTIC AVE	CHARLES AVE	ELLERSLIE AVE	0.15	0.30	5/22/14		
AVON CT	BERKSHIRE LA	CUL DE SAC	0.04	0.08	6/3/14		
AYRSHIRE RD	PERTSHIRE LA	EDINBOROUGH DR	0.21	0.42	6/3/14		
AZALEA LA	SCHOOL AVE	HOLLY AVE	0.17	0.34	6/5/14		
B AVE	WAKEFIELD AVE	BOULEVARD	0.13	0.26	4/10/14		
BATTERY PL	WRIGHT AVE	MARVIN AVE	0.68	1.36	4/17/14		
BEAR CHASE CT	LONGHORN DR	CUL DE SAC	0.10	0.20	6/5/14		
BEECH AVE	BRISTOL AVE	IVEY AVE	0.06	0.12	4/28/14		
BEECHWOOD AVE	DALE AVE	BOULEVARD	0.12	0.24	5/13/14		
BENT OAKS DR	ELLERSLIE AVE	CUL DE SAC	0.24	0.48	5/22/14		
BERKSHIRE LA	AVON CT	TAYLOR LA	0.11	0.22	6/3/14		
BERMUDA AVE	ELLERSLIE AVE E	NORTH DEAD END	0.26	0.52	5/13/14		
BILTMORE DR	FORESTVIEW DR	NORWOOD DR	0.58	1.16	5/19/14		
BIRCH AVE	BOULEVARD	SPRUCE AVE	0.13	0.26	5/13/14		
BLUFFS CT	BLUFFS DR	DEAD END SOUTH	0.04	0.08	6/2/14		
BLUFFS DR	DUNLOP FARMS BLVD	DEAD END EAST	0.18	0.36	6/2/14		
BLUFFS TERR	BLUFFS DR	DEAD END NORTH	0.15	0.30	6/2/14		
BOULEVARD	NCL	SCL	3.46	6.92	3/11-3/14/14	6/17/14	
BOYKINS AVE	BOULEVARD	CUL DE SAC	0.11	0.22	5/13/14		
BRADSHER AVE	DUPUY AVE	DEAD END	0.16	0.32	4/22/14		
BRAME AVE	BOULEVARD	WAKEFIELD AVE	0.15	0.30	4/10/14		
BRANDERS BRIDGE RD	BOULEVARD	WCL	0.19	0.38	4/4/14		
BRANDYWINE RD	HUNTINGTON RD	WINDMERE DR	0.18	0.36	6/3/14		
BRAXTON AVE	DUPUY AVE	MAPLE LA	0.14	0.28	4/17/14		
BREEZY HILL DR	DEAD END SOUTH	DEAD END NORTH	0.39	0.78	5/30/14		
BRIAN LA	FAIRMONT DR	NORWOOD DR	0.26	0.52	5/15/14		
BRIARCLIFFE CT	BRIARCLIFFE DR	DEAD END W	0.11	0.22	6/3/14		
BRIARCLIFFE DR	WOODCLIFFE DR	END PAVEMENT	0.42	0.84	6/3/14		
BRIJADAN LA	LAKEVIEW AVE	CEDAR CREEK	0.16	0.32	5/20/14		
BRIJADAN LA	CEDAR CREEK	LAURENS LA	0.03	0.06	5/20/14		
BRISTOL AVE	CAMERON AVE	CONDUIT RD	0.16	0.32	4/28/14		
BROCKWELL LA	CONDUIT RD	DEAD END	0.43	0.86	5/30/14		

Street Sweeping - FY 2014

Street Name	From	To	Center Lane Miles	Lane Miles Swept	Date Swept #1	Date Swept #2	Date Swept #3
BROOKE CT	WATERFRONT DR	DEAD END	0.05	0.10	6/2/14		
BROOKEDGE DR	VALLEY RD	NORTH TEMPLE AVE	0.60	1.20	5/12/14		
BROOKHILL AVE	FORESTVIEW DR	SHERWOOD DR	0.16	0.32	5/13/14		
BROOKHILL CT	BROOKHILL AVE	BROOKHILL CT	0.11	0.22	5/13/14		
BRUCE AVE	BOULEVARD	DEAD END	0.10	0.20	4/22/14		
BUCKINGHAM DR	WINSTON DR	FAIRMONT DR	0.23	0.46	5/15/14		
BURLINGTON DR	DUKE OF GLOUCESTER	CEDARWOOD AVE	0.13	0.26	5/26/14		
C AVE	BOULEVARD	WAKEFIELD AVE	0.14	0.28	4/10/14		
CABELL DR	LAKEVIEW AVE	DEAD END	0.15	0.30	5/19/14		
CAMBRIDGE PL	HANOVER AVE	BRADSHER AVE	0.26	0.52	4/22/14		
CAMDEN RD	HUNTINGTON RD	CONJURERS DR	0.09	0.18	6/2/14		
CAMELOT CT	NORWOOD DR	CUL DE SAC	0.05	0.10	5/15/14		
CAMERON AVE	BOULEVARD	FLORAL AVE	0.41	0.82	4/28/14		
CANTERBURY LA	BREEZY HILL DR	CONDUIT RD	0.42	0.84	5/26/14		
CARROLL AVE	HILLSIDE LA	BOULEVARD	0.43	0.86	4/22/14		
CASWELL AVE	PICKETT AVE	DAVIS AVE	0.06	0.12	5/19/14		
CEDAR CREEK LA	LAKEVIEW AVE	BRIJADAN LA	0.12	0.24	5/20/14		
CEDAR LA	BRAME AVE	F AVE	0.06	0.12	4/10/14		
CEDAR LA	E AVE	TEMPLE AVE	0.11	0.22	4/10/14		
CEDAR LA	A AVE	BRANDERS BRIDGE RD	0.10	0.20	4/10/14		
CEDAR RIDGE CT	CLIFTON DR	CLIFTON DR	0.12	0.24	5/30/14		
CEDARWOOD AVE	YACHT BASIN DR	ELMWOOD DR	0.12	0.24	5/22/14		
CEDARWOOD AVE	CANTERBURY LA	COVINGTON RD	0.28	0.56	5/26/14		
CENTER AVE	ELKO AVE	CONDUIT RD	0.12	0.24	3/28/14		
CHARLES AVE	CONDUIT RD	HOLLY AVE	0.16	0.32	5/22/14		
CHARLES AVE	PIN OAK CT	OLD TOWN DR	0.45	0.90	5/22/14		
CHARLES H DIMMOCK PW	SOUTHPARK BVD	TEMPLE AVE	0.69	1.38	4/2/14		
CHARLOTTE AVE	BOULEVARD	DEAD END	0.32	0.64	4/14/14		
CHESTERFIELD AVE E	HILLSIDE LA	HAMILTON AVE	0.46	0.92	4/22/14		
CHESTERFIELD AVE W	DUPUY AVE	DEAD END	0.44	0.88	4/22/14		
CHESTNUT AVE	IVEY RD	PINEHURST AVE	0.18	0.36	4/28/14		
CHOPTANK CT	PEACECLIFF CT	PEACECLIFF CT	0.10	0.20	5/30/14		
CLAIRMONT CT	ELLERSLIE	DUNLOP FARMS BVD			6/5/14		
CLEMENTS CT	DUNSTON POINT PKY	DEAD END	0.05	0.10	6/2/14		
CLIFTON AVE	CONDUIT RD	DEAD END	0.26	0.52	5/30/14		
CLOVER HILL AVE	CEDAR LA	WOODLAWN AVE	0.26	0.52	5/20/14		
COLONIAL AVE	CAMERON AVE	WESTOVER AVE E	0.39	0.78	4/3/14		
COMPTON RD	ELLERSLIE AVE	OLD TOWN DR	0.37	0.74	5/20/14		
COMSTOCK DR	WATERFRONT DR	DEAD END S	0.32	0.64	6/2/14		
CONCORD AVE	YORKTOWN DR	KENT AVE	0.05	0.10	4/10/14		
CONDUIT RD	ROSLYN AVE	WHITE BANK RD	3.38	6.76	4/2-4/4/14		
CONJURERS DR	DEAD END	DEAD END	0.39	0.78	6/2/14		

Street Sweeping - FY 2014

Street Name	From	To	Center Lane Miles	Lane Miles Swept	Date Swept #1	Date Swept #2	Date Swept #3
COTTAGE GROVE AVE	WESTOVER AVE W	MAPLE AVE	0.25	0.50	4/3/14		
COURTLAND DR	WICKER DR	BRIARCLIFFE DR	0.10	0.20	6/3/14		
COVINGTON RD	CONDUIT RD	CUL DE SAC	0.66	1.32	5/26/14		
CREEK POINT CT	WOODBIDGE RD	DEAD END E	0.08	0.16	5/30/14		
CRESCENT AVE	DEAD END	CUL DE SAC	0.21	0.42	4/22/14		
CRESTWOOD DR	SNEAD AVE	SNEAD AVE	0.23	0.46	5/12/14		
CUMBERLAND DR	COURTLAND DR	WICKER DR	0.15	0.30	6/3/14		
D AVE	WAKEFIELD AVE	BOULEVARD	0.13	0.26	4/10/14		
DALE AVE	ELLERSLIE AVE E	ROSS AVE	0.28	0.56	5/13/14		
DANA LA	CLIFTON AVE	CLIFTON AVE	0.20	0.40	5/30/14		
DANVILLE AVE	FLORAL AVE	LAFAYETTE AVE	0.16	0.32	5/6/14		
DANVILLE AVE	LAFAYETTE AVE	LYNCHBURG AVE	0.22	0.44	5/5/14		
DAVIS AVE	WOODLAWN AVE	LENOIR AVE	0.12	0.24	5/19/14		
DEERWOOD DR	CONDUIT RD	CUL DE SAC	0.17	0.34	5/30/14		
DICK EWELL AVE	FISCHER AVE	HAMILTON AVE	0.12	0.24	5/6/14		
DOGWOOD DR	HOLLY AVE	SCHOOL AVE	0.16	0.32	6/5/14		
DOVER LA	CHARLES AVE	OLD TOWN DR	0.17	0.34	5/20/14		
DRAKE AVE	COTTAGE GROVE AVE	MERIDIAN AVE	0.14	0.28	4/14/14		
DRIFTWOOD AVE	ELMWOOD DR	CUL DE SAC	0.11	0.22	5/22/14		
DUKE OF GLOUCESTER	CONDUIT RD	CUL DE SAC	0.94	1.88	5/26/14		
DUNLOP FARMS BLVD	ELLERSLIE E AVE	DEAD END	0.74	1.48	9/12/13	5/28/14	
DUNOON CT	DUNOON RD	DEAD END	0.07	0.14	6/3/14		
DUNOON RD	EDINBOROUGH DR	END PAVEMENT	0.15	0.30	6/3/14		
DUNSTON POINT PKY	WHITE BANK RD	WATERFRONT DR	0.60	1.20	6/2/14		
DUPUY AVE	BOULEVARD	WCL	0.43	0.86	7/15/13	4/9/14	
E AVE	BOULEVARD	WAKEFIELD AVE	0.13	0.26	4/10/14		
EAST AVE	EASTMAN AVE	HARGRAVE AVE	0.17	0.34	5/13/14		
EASTMAN AVE	BOULEVARD	EAST AVE	0.20	0.40	5/13/14		
EASTWIND CT	BRIARCLIFFE DR	DEAD END	0.09	0.18	6/3/14		
EDINBOROUGH DR	CONDUIT RD	AYRSHIRE RD	0.27	0.54	6/3/14		
ELKO AVE	MACARTHUR AVE	HIGHLAND CT	0.20	0.40	5/12/14		
ELKO AVE	WESTOVER AVE E	LYNCHBURG AVE	0.22	0.44	3/28/14		
ELLERSLIE AVE (E & W)	SPRINGDALE AVE	CONDUIT RD	1.37	2.74	9/12/13	3/10-3/11/14	6/17/14
ELLIS LA	BOULEVARD	SNEAD AVE	0.07	0.14	5/12/14		
ELMWOOD DR	CONDUIT RD	MT PLEASANT DR	0.73	1.46	5/22/14		
ESSEX RD	BOULEVARD	HAMPTON DR	0.26	0.52	5/12/14		
EWING AVE	LAKEVIEW AVE	TASWELL AVE	0.13	0.26	5/20/14		
F AVE	WAKEFIELD AVE	BOULEVARD	0.14	0.28	4/10/14		
FAIRFAX AVE	BOULEVARD	DEAD END	0.27	0.54	4/14/14		
FAIRLIE RD	OLD TOWN DR	COMPTON RD	0.31	0.62	5/20/14		
FAIRMONT DR	NORWOOD DR	BUCKINGHAM DR	0.32	0.64	5/19/14		
FAIRMONT DR	BUCKINGHAM DR	SHERWOOD DR	0.06	0.12	5/19/14		

Street Sweeping - FY 2014

Street Name	From	To	Center Lane Miles	Lane Miles Swept	Date Swept #1	Date Swept #2	Date Swept #3
FARRIS AVE	MAPLE GROVE AVE	CUL DE SAC	0.10	0.20	5/12/14		
FISCHER AVE	JOE JOHNSON AVE	RICHMOND AVE	0.16	0.32	5/6/14		
FLINTLOCK DR	SWIFT CREEK LA	NCL	0.05	0.10	5/19/14		
FLORAL AVE	CAMERON AVE	WESTOVER AVE E	0.34	0.68	4/28/14		
FOREST VIEW DR	LAKEWOOD DR	BILTMORE DR	0.89	1.78	5/13/14		
FRANKLIN AVE	BRAME AVE	MAPLE AVE	0.58	1.16	4/10/14		
FREDERICK AVE	ELLERSLIE AVE	CHARLES AVE	0.15	0.30	5/22/14		
FRIAR LA	NORWOOD DR	SEATON DR	0.07	0.14	5/15/14		
GEORGE AVE	WEST AVE	EAST AVE	0.16	0.32	5/13/14		
GERMAR CT	CUL DE SAC E	CUL DE SAC W	0.17	0.34	6/2/14		
GILLS DR	CONDUIT RD	DUKE OF GLOUCESTER	0.12	0.24	5/30/14		
GLENVIEW AVE	SHERWOOD DR	ELLERSLIE AVE W	0.19	0.38	5/19/14		
GOULD AVE	BRADSHER AVE	DUPUY AVE	0.10	0.20	4/22/14		
GREEN MEADOW CT	GREENMEADOW DR	END	0.05	0.10	6/5/14		
GREEN MEADOW DR	HONEYCREEK CT	END	0.11	0.22	6/5/14		
GREENLEAF LA	KESWICK RD	CLAIRMOUNT CT	0.23	0.46	5/28/14		
GREENWOOD AVE	ELMWOOD DR	YACHT BASIN DR	0.12	0.24	5/22/14		
HAMILTON AVE	BOULEVARD	TEMPLE AVE	1.25	2.50	5/1/14		
HAMPTON DR	NEWCASTLE DR	ESSEX RD	0.37	0.74	5/12/14		
HANOVER AVE	ORCHARD AVE	MARVIN AVE	0.24	0.48	4/22/14		
HARDY AVE	CONDUIT RD	ELKO AVE	0.13	0.26	3/28/14		
HARGRAVE AVE	EAST AVE	WEST AVE	0.16	0.32	5/13/14		
HAWICK DR	PERTSHIRE LA	CUL DE SAC	0.14	0.28	6/3/14		
HELEN AVE	SNEAD AVE	HAMILTON AVE	0.20	0.40	5/8/14		
HEMLOCK AVE	YEW AVE	DEAD END	0.20	0.40	5/13/14		
HERMITAGE RD	CONDUIT RD	BREEZY HILL DR	0.40	0.80	5/28/14		
HERON RUN DR	DUNSTON POINT PKWY	KINGFISHER WAY	0.07	0.14	6/2/14		
HIGHLAND AVE	BOULEVARD	END PAVEMENT	0.32	0.64	5/8/14		
HIGHLAND CT E	ELKO AVE	DEAD END E	0.06	0.12	5/12/14		
HIGHLAND CT W	ELKO AVE	DEAD END W	0.09	0.18	5/12/14		
HILL PL	DANVILLE AVE	WESTOVER AVE E	0.22	0.44	5/6/14		
HILLCREST AVE	BOULEVARD	DEAD END	0.24	0.48	5/13/14		
HILLSIDE LN	ARCHER AVE	CARROLL AVE			4/22/14		
HOLLY AVE	YORKSHIRE RD	CHARLES AVE	0.36	0.72	5/22/14		
HOMESTEAD DR	BILTMORE DR	FORESTVIEW DR	0.52	1.04	5/19/14		
HONEYCREEK CT	LONGHORN DR	END	0.20	0.40	6/5/14		
HOPE RIDGE CT	WINDMERE DR	CUL DE SAC	0.12	0.24	6/3/14		
HUNTINGTON RD	CONDUIT RD	CONDUIT RD	0.73	1.46	6/2/14		
INDIAN ROCK CT	WOODBIDGE RD	DEAD END E	0.09	0.18	5/30/14		
INGRAM AVE	CONDUIT RD	END PAVEMENT	0.09	0.18	4/28/14		
IVEY AVE	FLORAL AVE	RIVERVIEW RD	0.38	0.76	4/28/14		
JACKSON AVE	BOULEVARD	HAMILTON AVE	0.31	0.62	4/24/14		

Street Sweeping - FY 2014

Street Name	From	To	Center Lane Miles	Lane Miles Swept	Date Swept #1	Date Swept #2	Date Swept #3
JAMES AVE	BOULEVARD	END PAVEMENT	0.56	1.12	5/8/14		
JAMESTOWN RD	HOLLY AVE	CONDUIT AVE	0.18	0.36	4/28/14		
JEFFERSON AVE	WASHINGTON AVE	CAMERON AVE	0.32	0.64	4/24/14		
JENNICK DR	DIMMOCK PKWY	DEAD END EAST	0.26	0.52	4/2/14		
JERSEY CT	CUL DE SAC S	CUL DE SAC N	0.16	0.32	6/5/14		
JETT AVE	WESTOVER AVE E	LYONS AVE	0.18	0.36	5/6/14		
JOE JOHNSON AVE	HAMILTON AVE	JETT AVE	0.14	0.28	5/6/14		
KEITH DR	ESSEX RD	NEWCASTLE DR	0.05	0.10	5/12/14		
KENNON CT	WATERFRONT DR	DEAD END	0.06	0.12	5/30/14		
KENNON POINT DR	DUNSTON POINT PKWY	DEAD END E	0.39	0.78	5/30/14		
KENSINGTON AVE	LYNCHBURG AVE	WESTOVER AVE E	0.21	0.42	5/6/14		
KENT AVE	CONCORD AVE	BRANDERS BRIDGE RD	0.09	0.18	4/10/14		
KESWICK RD	COMPTON RD	OLD TOWN DR	0.22	0.44	5/20/14		
KINGFISHER WAY	WHITE BANK RD	DEAD END N	0.18	0.36	6/2/14		
LAFAYETTE AVE	WESTOVER AVE E	BOULEVARD	0.60	1.20	5/5/14		
LAKE AVE	WOODLAWN AVE	SPRINGDALE AVE	0.12	0.24	5/19/14		
LAKESIDE DR	LAKEVIEW AVE	LAKEVIEW AVE	0.30	0.60	5/19/14		
LAKEVIEW AVE	BOULEVARD	WCL	0.86	1.72	4/9/14		
LAKEVIEW PARK RD	LAKEVIEW AVE	CABELL DR	0.29	0.58	5/19/14		
LAKEWATER CT	WATERFRONT DR	DEAD END N	0.05	0.10	5/30/14		
LAKWOOD DR	SHERWOOD DR	NOTTINGHAM DR	0.52	1.04	5/15/14		
LAUREL PW	SNEAD AVE	BOULEVARD	0.07	0.14	5/12/14		
LAURENS LA	LAKEVIEW AVE	LAKEVIEW	0.17	0.34	5/20/14		
LEE AVE	BOULEVARD	DANVILLE AVE	0.27	0.54	5/6/14		
LEE PL	RICHMOND AVE	DANVILLE AVE	0.21	0.42	5/6/14		
LENOIR AVE	DAVIS AVE	CLOVER HILL AVE	0.20	0.40	5/19/14		
LEXINGTON DR	CONDUIT RD	DEERWOOD DR	0.17	0.34	5/30/14		
LILLISTON AVE	IVEY AVE	CONDUIT RD	0.11	0.22	4/28/14		
LONGHORN DR	ELLERSLIE AVE	DUNLOP FARMS BVD	0.56	1.12	6/5/14		
LUNDY AVE	SADLER AVE	VERBOV AVE	0.07	0.14	5/20/14		
LYNCHBURG AVE	BOULEVARD	CONDUIT RD	0.64	1.28	5/6/14		
LYONS AVE	BOULEVARD	TUSSING LA	0.39	0.78	5/8/14		
MACARTHUR AVE	SNEAD AVE	ELKO AVE	0.39	0.78	5/12/14		
MALLARD DR	CONDUIT RD	CONDUIT RD	0.15	0.30	5/30/14		
MAPLE AVE	BOULEVARD	MERIDIAN AVE	0.26	0.52	4/10/14		
MAPLE GROVE AVE	BOULEVARD	FARRIS AVE	0.20	0.40	4/28/14		
MAPLE LA	BATTERY PL	CUL DE SAC	0.20	0.40	4/17/14		
MARVIN AVE	BOULEVARD	DEAD END	0.48	0.96	4/22/14		
MEADOWVIEW RD	INGRAM AVE	END PAVEMENT	0.07	0.14	4/28/14		
MERIDIAN AVE	MAPLE AVE	DUPUY AVE	0.71	1.42	4/17/14	5/13/14	
MOORE AVE	EAST AVE	BOULEVARD	0.20	0.40	5/13/14		
MOORMAN AVE	OAKS AVE	TUSSING LA	0.29	0.58	5/8/14		

Street Sweeping - FY 2014

Street Name	From	To	Center Lane Miles	Lane Miles Swept	Date Swept #1	Date Swept #2	Date Swept #3
MOOSE AVE	WHITE BANK RD	WHITE BANK RD	0.20	0.40	6/2/14		
MOOSE LA	WOODBIDGE RD	WOODBIDGE	0.05	0.10	5/30/14		
MT PLEASANT DR	OAKWOOD DR	DEAD END	0.21	0.42	5/22/14	Not on VDOT	
NANTUCKET CT	NORTH DEAD END	SOUTH DEAD END	0.06	0.12	6/2/14		
NEWCASTLE DR	BOULEVARD	CUL DE SAC	0.41	0.82	5/12/14		
NORFOLK AVE	BOULEVARD	LAFAYETTE AVE	0.26	0.52	5/6/14		
NORWOOD DR	FORESTVIEW DR	NCL	0.84	1.68	5/15/14		
NOTTINGHAM DR	FORESTVIEW DR	CUL DE SAC	0.88	1.76	5/15/14		
OAKS AVE	LYONS AVE	END PAVEMENT	0.08	0.16	5/8/14	5/22/14	
OAKWOOD DR	MT PLEASANT DR	GREENWOOD AVE	0.62	1.24	5/22/14		
OLD BRICKHOUSE LA	COMSTOCK DR	DEAD END	0.21	0.42	6/2/14		
OLD TOWN CREEK WAY	CONDUIT RD	CONDUIT RD	0.06	0.12	6/5/14		
OLD TOWN DR	ELLERSLIE AVE	CUL DE SAC	0.67	1.34	5/20/14		
ORANGE AVE	BOULEVARD	DEAD END	0.25	0.50	5/13/14		
ORCHARD AVE	HANOVER AVE	MARVIN AVE	0.12	0.24	4/22/14		
ORKNEY RD	AYRSHIRE RD	EDINBOROUGH DR	0.08	0.16	6/3/14		
PARK AVE	CONDUIT RD	ELKO AVE	0.11	0.22	3/28/14		
PEACECLIFF CT	CONDUIT RD	CUL DE SAC	0.12	0.24	6/5/14		
PECAN TREE TER	LONGHORN DR	CUL DE SAC	0.13	0.26	6/5/14		
PERTSHIRE LA	CUL DE SAC	END PAVEMENT	0.40	0.80	6/3/14		
PICKETT AVE	BOULEVARD	WOODLAWN AVE	0.22	0.44	5/19/14		
PICKWICK AVE	DANVILLE AVE	BOULEVARD	0.16	0.32	5/6/14		
PIEDMONT AVE	BOULEVARD	WCL	0.36	0.72	4/14/14		
PIN OAK CT	CHARLES AVE	CUL DE SAC	0.15	0.30	5/22/14		
PINECLIFFE DR	BRIARCLIFFE DR	BRIARCLIFFE DR	0.28	0.56	6/3/14		
PINEHURST AVE	CONDUIT RD	IVEY AVE	0.33	0.66	4/28/14		
PLEASANT DALE AVE	DUKE OF GLOUCESTER	CONDUIT RD	0.30	0.60	5/26/14		
PLUMTREE AVE	BATTERY PL	CUL DE SAC	0.21	0.42	4/17/14		
PONDOLA LN	DEAD END	CITY LIMITS	0.20	0.40	5/19/14		
POPLAR ST	MAPLE AVE	CHARLOTTE AVE	0.05	0.10	4/14/14		
PRIDE AVE	TEMPLE AVE	PRINCE ALBERT AVE	0.05	0.10	5/12/14		
PRINCE ALBERT AVE	HAMILTON AVE	SNEAD AVE	0.39	0.78	5/12/14		
PRINCETON RD	WINDMERE DR	HUNTINGTON DR	0.17	0.34	6/3/14		
RED FOX RD	HUNTINGTON RD	HUNTINGTON RD	0.17	0.34	6/2/14		
RICHMOND AVE	BOULEVARD	LAFAYETTE AVE	0.26	0.52	5/6/14		
RIDGE RD	SNEAD AVE	DEAD END	0.39	0.78	5/12/14		
RIDGECREST LA	RIVEROAKS DR	CUL DE SAC	0.30	0.60	5/30/14		
RIVEROAKS DR	CONDUIT RD	BREEZY HILL DR	0.39	0.78	5/30/14		
RIVERSIDE RD	ROSLYN AVE	END PAVEMENT	0.03	0.06	4/24/14		
RIVERVIEW RD	IVEY AVE	ROSLYN AVE	0.25	0.50	4/24/14		
ROANOKE AVE	BOULEVARD	DEAD END	0.38	0.76	4/14-4/17		
ROBINWOOD CT	NORWOOD DR	CUL DE SAC	0.04	0.08	5/15/14		

Street Sweeping - FY 2014

Street Name	From	To	Center Lane Miles	Lane Miles Swept	Date Swept #1	Date Swept #2	Date Swept #3
ROSLYN AVE	WASHINGTON AVE	IVEY AVE	0.33	0.66	4/24/14		
ROSLYN RD E	I-95	SOUTHPARK BLVD	0.23	0.46	4/1/14		
ROSLYN RD W	I-95	DEAD END (past conduit)	1.11	2.22	4/1/14	6/5/14	
ROSS AVE	EASTMAN AVE	EASTMAN AVE	0.10	0.20	5/13/14		
ROYAL OAK AVE	CAMERON AVE	RIVERSIDE RD	0.24	0.48	4/24/14		
RYAN AVE	PINEHURST AVE	PINEHURST AVE	0.13	0.26	4/28/14		
SADLER AVE	LAKEVIEW AVE	LUNDY AVE	0.23	0.46	5/20/14		
SALEM CT	CUL DE SAC N	CUL DE SAC S	0.08	0.16	6/2/14		
SALISBURY RD	CONDUIT RD	HUNTINGTON RD	0.20	0.40	6/3/14		
SANCHO ALLEY	HANOVER AVE	CARROLL AVE			4/22/14		
SCHOOL AVE	CONDUIT RD	PERTHSHIRE LA	0.14	0.28	6/3/14		
SEATON DR	NOTTINGHAM DR	CUL DE SAC	0.15	0.30	5/15/14		
SHADE TREE CT	SHADE TREE DR	CUL DE SAC	0.04	0.08	6/5/14		
SHADE TREE DR	LONGHORN DR	CUL DE SAC	0.16	0.32	6/5/14		
SHERWOOD DR	BOULEVARD	FAIRMOUNT DR	0.69	1.38	5/13/14		
SHUFORD AVE	BOULEVARD	WESTOVER AVE	0.24	0.48	5/6/14		
SNEAD AVE	JAMES AVE	SPRING DR	0.48	0.96	5/12/14		
SOUTH AVE	DEAD END W	DEAD END E	0.21	0.42	4/1/14		
SOUTHPARK BLVD	ROSLYN RD E	TEMPLE AVE	0.94	1.88	4/1-4/2/14		
SPRING DR	BROOKEDGE DR	DEAD END W	0.17	0.34	5/12/14		
SPRINGDALE AVE	LAKE AVE	SHERWOOD DR	0.35	0.70	5/19/14		
SPRUCE AVE	YEW AVE	HEMLOCK AVE	0.20	0.40	5/13/14		
STRATFORD DR	CONDUIT RD	CUL DE SAC	0.41	0.82	6/3/14		
STUART AVE	CONDUIT RD	JACKSON AVE	0.19	0.38	4/28/14		
SUFFOLK AVE	LAFAYETTE AVE	BOULEVARD	0.26	0.52	5/6/14		
SWIFT CREEK LA	BILTMORE DR	NCL	0.35	0.70	5/19/14		
TASWELL AVE	WOODLAWN AVE	CEDAR LA	0.26	0.52	5/20/14		
TAYLOR LA	BERKSHIRE LA	END PAVEMENT	0.07	0.14	6/3/14		
TEMPLE AVE	BOULEVARD	CITY LIMITS	1.85	7.40	7/15/13	3/27/14	4/9/14
TEMPLE AVE N	TEMPLE AVE	RIDGE RD	0.08	0.16	5/12/14		
TEMPLE AVE S	TEMPLE AVE	RIDGE RD	0.04	0.08	5/12/14		
TEMPLE LAKE DR	DIMMOCK PKWY	DIMMOCK PKWY	0.43	0.86	4/2/14		
TUDOR RD	NOTTINGHAM DR	NCL	0.16	0.32	5/15/14		
TUSSING LN	LYONS AVE	WESTOVER AVE	0.23	0.46	5/6/14	Not On VDOT	
VALLEY RD N	BROOKEDGE DR	VALLEY RD S	0.15	0.30	5/12/14		
VALLEY RD S	BOULEVARD	VALLEY RD N	0.05	0.10	5/12/14		
VALLEY RD S	VALLEY RD N	VALLEY RD N	0.03	0.06	5/12/14		
VALLEY RD S	VALLEY RD N	BROOKEDGE DR	0.09	0.18	5/12/14		
VANCE AVE	TASWELL AVE	LAKEVIEW AVE	0.13	0.26	5/20/14		
VERBOV AVE	LUNDY AVE	LAKEVIEW AVE	0.21	0.42	5/20/14		
VIRGINIA AVE	HAMILTON AVE	WASHINGTON AVE	0.24	0.48	4/24/14		
WAKEFIELD AVE	BRANDERS BRIDGE RD	BRAME AVE	0.44	0.88	4/10/14		

Street Sweeping - FY 2014

Street Name	From	To	Center Lane Miles	Lane Miles Swept	Date Swept #1	Date Swept #2	Date Swept #3
WALNUT AVE	SNEAD AVE	END PAVEMENT	0.44	0.88	5/8/14		
WASHINGTON AVE	BRISTOL AVE	BOULEVARD	0.49	0.98	4/24/14		
WATERCRESS CT	HERON RUN DR	DEAD END	0.18	0.36	6/2/14		
WATERFRONT DR	DUNSTON POINT PKY	DEAD END	0.86	1.72	6/2/14		
WELESLEY LA	WINDMERE DR	BERKSHIRE LA	0.05	0.10	6/3/14		
WELLINGTON RD	CONDUIT RD	CUL DE SAC	0.38	0.76	5/26/14		
WEST AVE	YEW AVE	MOORE AVE	0.16	0.32	5/13/14		
WESTOVER AVE	WEST CITY LIMITS	CONDUIT RD	1.04	2.08	4/3/14	6/5/14	
WHIPPORWILL CT	CONDUIT RD	DEAD END	0.05	0.10	5/30/14		
WHITE BANK RD	CONDUIT RD	DEAD END	0.22	0.44	6/2/14		
WHITE OAK CT	CHARLES AVE	CUL DE SAC	0.13	0.26	5/22/14		
WHITE SAND CT	HERON RUN DR	HERON RUN	0.15	0.30	6/2/14		
WHITEHALL DR	RIVEROAKS DR	BREEZY HILL DR	0.17	0.34	5/30/14		
WHITESTONE CT	PINECLIFFE DR	END	0.04	0.08	6/3/14		
WHITESTONE PL	PINECLIFFE DR	END	0.04	0.08	6/3/14		
WICKER DR	CONDUIT RD	COURTLAND DR	0.16	0.32	6/3/14		
WILDWOOD AVE	ELMWOOD DR	CUL DE SAC	0.12	0.24	5/22/14		
WILKSHIRE CT					6/3/14		
WILLIAMSBURG RD	CONDUIT RD	HOLLY AVE	0.17	0.34	4/28/14		
WILSON AVE	CONDUIT RD	WASHINGTON AVE	0.10	0.20	4/24/14		
WINDMERE DR	CONDUIT RD	CUL DE SAC	0.56	1.12	6/3/14		
WINDSOR AVE	BOULEVARD	BATTERY PL	0.20	0.40	4/17/14		
WINSTON AVE	LAKEWOOD DR	FAIRMONT DR	0.44	0.88	5/15/14		
WOODBIDGE RD	WATERFRONT DR	MOOSE LA	0.15	0.30	5/30/14		
WOODCLIFFE DR	BRIARCLIFFE DR	END	0.07	0.14	6/3/14		
WOODLAWN AVE	ELLERSLIE AVE W	SOUTH DEAD END	0.45	0.90	5/19/14		
WOODSIDE AVE	YACHT BASIN DR	ELMWOOD DR	0.12	0.24	5/22/14		
WOODSIDE AVE	ELMWOOD DR	DEAD END	0.01	0.02	5/22/14		
WRIGHT AVE	BOULEVARD	CUL DE SAC	0.40	0.80	4/17/14		
YACHT BASIN DR	CONDUIT RD	WILDWOOD AVE	0.56	1.12	5/22/14		
YEW AVE	BOULEVARD	DEAD END	0.19	0.38	5/13/14		
YORKSHIRE RD	CONDUIT RD	HOLLY AVE	0.19	0.38	4/28/14		
YORKTOWN DR	FRANKLIN AVE	CONCORD AVE	0.16	0.32	4/10/14		
1st Sweep Total Lane Miles				180.52			
Repeat Sweep Lane Miles				35.58			
Total				216.10			

**Sweeping Debris Removed
FY - 2014**

Date	Cubic Yards
07/15/13	16.0
09/12/13	8.0
03/10/14	24.0
03/11/14	32.0
03/12/14	28.0
03/13/14	32.0
03/14/14	3.5
03/27/14	16.0
03/28/14	16.0
04/01/14	16.0
04/02/14	24.0
04/03/14	32.0
04/04/14	24.0
04/09/14	24.0
04/10/14	24.0
04/14/14	16.0
04/17/14	24.0
04/22/14	32.0
04/24/14	24.0
04/28/14	32.0
05/01/14	12.0
05/05/14	8.0
05/06/14	40.0
05/08/14	16.0
05/12/14	20.0
05/13/14	32.0
05/15/14	32.0
05/19/14	40.0
05/20/14	32.0
05/22/14	32.0
05/26/14	32.0
05/28/14	16.0
05/30/14	32.0
06/02/14	24.0
06/03/14	24.0
06/05/14	16.0
06/17/14	4.0
Total Debris	859.5

Date	Oil-GAL	Antifreeze-GAL	Oil-Removed	Antifreeze-Removed
07/05/13	5.0			
07/06/13	3.0			
07/12/13	5.0			
07/13/13	10.0	5.0		
07/26/13	5.0	2.0		
08/03/13	3.0	2.0		
08/09/13	4.0			
08/17/30	4.0			
08/30/13	3.0			
09/06/13	2.0	4.0		
09/07/13	4.0			
09/13/13	2.0			
09/14/13	12.0			
09/20/13	5.0			
09/21/13	4.0	2.0		
10/05/13	6.0	2.0		
10/12/13	4.0			
10/18/13	8.0			
10/25/13	6.0	2.0		
10/26/13	4.0			
11/01/13	2.0			
11/02/13	4.0			
11/08/13	2.0	2.0		
11/09/13	4.0	4.0		
11/16/13	5.0			
11/22/13	9.0	2.0		
11/23/13	3.0			
12/06/13	6.0	2.0		
12/07/13	3.0			
12/13/13	4.0			
12/14/13	6.0			
12/20/13	2.0			
12/21/13	3.0	2.0		
12/26/13			477.0	0.0
12/27/13	12.0	2.0		
12/28/13	5.0			
01/03/14	3.0			
01/04/14	5.0	1.0		
02/08/14	2.0			
02/22/14	10.0	4.0		
02/28/14	4.0			
03/01/14	2.0			
03/15/14	4.1			
03/22/14	7.5			
04/04/14	1.0	2.0		
04/05/14	9.0			
04/11/14	2.0			
04/12/14	5.0	2.0		
04/18/14	4.0	3.0		
04/25/14	2.2			

04/26/14	1.5	
05/02/14	9.0	
05/03/14	15.0	
05/09/14	0.5	
05/10/14	0.25	
05/17/14	8.0	
05/23/14	1.0	
05/24/14	3.0	
05/30/14	2.0	
06/07/14	5.0	1.0
06/14/14	4.0	
06/27/14	6.0	
06/28/14	2.5	1.0
Totals	287.6	47.0

FY14 Annual Activity Report

Run Date: 09/30/2014 2:31 PM

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
10/7/2013	Storm Drain Clogged	Phone	W019735-100713	Patsy Dixon	202 Battery Place	Removed bundle of straw from in front of catch basin mount with rake water went down it was placed there by contractor working on Boulevard	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019310-083013	Patsy Dixon	Perthshire Ln,	Cleaned grass and silt from a curb inlet at 3831 and cleaned grass clipping from a curb inlet at 3849	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019311-083013	Patsy Dixon	3801 Orkney Rd.	Cleaned trash and silt from a curb inlet	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019312-083013	Patsy Dixon	City Wide	Removed 1/2 cubic yard of debris from: 148 Briarcliff Ct- Curb Inlet removed grass, 119 Dunoon Ct - Curb Inlet removed grass and silt, 127 School Ave - Curb Inlet removed pineneedles, 3606 Hawick Dr - Curb Inlet removed grass clippings and silt.	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019313-083013	Patsy Dixon	218 Orange Ave.	On 8/18/13 Borrow a large chisel head nozzle for flusher from Atlantic Machinery, On 8/16/13 Used flusher to clean box and flush 200' of 15" concrete pipe removed 3 cubic yards of silt, rocks and trash. Used 2,000 gallons of water. *Note* all driveways in this neighborhood are gravel and or dirt	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019314-083013	Patsy Dixon	City Wide	Removed 2 cubic yards of debris from: 116 Marvin Ave - Curb Inlet removed grass and trash, 510 Battery Pl - Curb Inlet removed grass clippings and silt, 503 Braxton Ave - Curb Inlet removed grass, trash and sticks, 205 Plumtree Ave - Curb Inlet removed grass clippings and silt, 211 Maple Ln - curb Inlet removed grass clippings, trash and silt, 151 Chesterfield Ave- Curb Inlet removed trash and silt, 124 Carroll Ave - Curb Inlet removed grass and sticks.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019316-083013	Patsy Dixon	1703 Franklin Ave.	Cleaned a curb inlet removed 1/4 cubic yards of grass and trash	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019317-083013	Patsy Dixon	2207 Wakefield Ave.	Removed 1/4 cubic yards of debris grass clipping from a catch Basin	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019318-083013	Patsy Dixon	Maple Ave.	Removed 3 cubic yards of asphalt and dirt in bottom basin	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019320-083013	Patsy Dixon	Fairfax Ave.	At Boulevard near Old Texaco Gas Station removed 3 cubic yards of debris sit, grass, rocks, trash and dirt from 3 Curb Inlets sweeper picked up debris from street.	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019322-083013	Patsy Dixon	City Wide	Removed 3 cubic yards of debris from: 1024, 1025 Taylor Ln - curb inlet removed grass, Avon Ct Dead End - Curb and Gutter - Chopped grass with shovel, Welesley Ln at Windmere Dr - 2 curb Inlets removed grass and silt, sweeper picked up debris from street.	Completed		
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019326-083013	Patsy Dixon	Boulevard	At A Ave. - Catch basin removed trash, At Lyons Ave - Catch Basin removed grass clipping. Removed 1/2 cubic yard of debris.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019330-083013	Patsy Dixon	Lakeside Dr.	Removed 1 cubic yard of debris from: 121 Lakeside Dr - Catch Basin removed grass clippings, silt, pineneedles and cones. 111 Lakeside Dr - Catch Basin removed silt, pineneedles and cones.	Completed		
8/2/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018989-080213	Patsy Dixon	Boulevard @ Shuford Ave.	Cleaned catch basin removed Trash	Completed		
8/2/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018990-080213	Patsy Dixon	516 Battery Pl	Curb Inlet removed grass clipping and trash	Completed		
8/2/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018991-080213	Patsy Dixon	116 Marvin Ave.	Removed Grass Clipping and silt	Completed		
8/2/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018992-080213	Patsy Dixon	403 Gould Ave.	Removed Trash	Completed		
8/2/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018993-080213	Patsy Dixon	208 Crescent Ave	Curb Inlet removed grass clipping	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/2/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018994-080213	Patsy Dixon	417 Bradsher Ave	Curb Inlet removed grass clipping and trash	Completed		
8/6/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019024-080613	Patsy Dixon	City Wide	Removed 2 cubic yards of debris from the following basins: 114 Chesterfield Ave - Catch Basin Grate Top removed silt and trash, 124 Carroll Ave - Curb Inlet removed grass clippings, 406 Dick Ewell Ave - Catch Basin Grate Top removed grass clippings, 212 Lyons Ave - Curb Inlet removed Trash and Car parts, Richmond Ave at Boulevard - Curb inlet removed Trash and silt, 206 Lee Ave - Curb Inlet removed grass clippings, 203 Lee Ave - removed grass clippings and trash.	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018451-070813	Patsy Dixon	318 Jefferson Ave.	Cleaned curb inlet removed 1/2 cubic yard of sticks and toys	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018452-070813	Patsy Dixon	E. Westover @ Hamilton Aves.	Cleaned catch basin grate top removed 1/2 cubic yards of grass clipping, sticks and trash	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018453-070813	Patsy Dixon	Conduit Rd.	Cleaned in front of inlet at Heritage Rd 2-curb inlets removed grass, at Ivey Ave - Curb Inlet removed grass, trash and silt - 1/2 cubic yard of debris.	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018454-070813	Patsy Dixon	656 Battery Pl.	Curb Inlet - remove 1/2 cubic yard of silt and sticks.	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018457-070813	Patsy Dixon	1314 Canterbury Ln.	Curb Inlet removed 1 cubic yard of sticks and leaves.	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018458-070813	Patsy Dixon	Pickwick Alley	Removed a large amount of trash with backhoe and flatbed dumptruck per Mike	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018461-070813	Patsy Dixon	Dupuy Ave@ Battery Pl	Cleaned Curb Inlet collected 1 cubic yard of trash	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
7/8/2013	Storm Drain Clogged	Internal-Employee	W018462-070813	Patsy Dixon	822 Old Town Dr.	Cleaned Curb Inlet Collected 1 cubic yard of Sticks	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018464-070813	Patsy Dixon	Swift Creek Ln.	At Flintlock Dr removed sticks and silt	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018465-070813	Patsy Dixon	Sherwood Dr.	At 7-11 Removed Trash and Pineneedles	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018467-070813	Patsy Dixon	112 Moore Ave.	Removed Trash and Car Parts 1 cubic yards	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018468-070813	Patsy Dixon	1012 Lafayette Ave.	Removed 1.5 cubic yards of trash, rocks and silt from a Curb Inlet	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018469-070813	Patsy Dixon	1014 Hamilton @ E. Westover Aves	3-Inlets 15" Concrete pipe blocked up with sticks, trash, rocks and dirt removed 1.5 debris and used 1,000 gallons of water	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018483-070813	Patsy Dixon	114 Chesterfield Ave.	Removed 1 cubic yard of sticks and silt	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018485-070813	Patsy Dixon	Conduit Rd @ Hardy Ave.	Removed 1 cubic yard of debris sticks and leaves	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018488-070813	Patsy Dixon	Lakeview Pkwy @ lakeview Ave.	Cleaned 2-catch basins removed sticks, leaves and grass clippings 1/2 cubic yards of debris	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018490-070813	Patsy Dixon	118 Lakeside Dr.	Across from the above address cleaned catch basin removed 1/2 cubic yard of pineneedles.	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018492-070813	Patsy Dixon	Hamilton @ E. Westover Aves	Cleaned Catch Basin removed 1/2 cubic yard of Trash	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
7/8/2013	Storm Drain Clogged	Internal-Employee	W018494-070813	Patsy Dixon	114 Chesterfield Ave.	Cleaned catch basin removed 1/2 cubic yard of pineneedles	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018496-070813	Patsy Dixon	Lakeview Ave @ Boulevard	Removed trash and a Cardboard Box	Completed		
7/18/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018715-071813	Patsy Dixon	Boulevard	Cleaned the following basins: Across from Valley Rd on Boulevard - Catch Basin removed trash and car parts. At 7-11 and Boulevard South - 2 catch basin removed silt and trash. Shuford Ave at Boulevard - Catch Basin removed silt and trash. Collected 2 cubic yards of debris.	Completed		
7/24/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018812-072413	Patsy Dixon	City Wide	Cleaned the following basins collected 1 cubic yards of debris: 114 Boykins Ave - Catch Basin removed grass, 89 Sherwood Dr - Grate top Basin removed silt and pine needles, 300 Fairmount Dr - Curb Inlet removed grass and sticks, 101 Flintlock Dr - Curb Inlet removed sticks and grass clippings, 214 Biltmore Dr - Curb Inlet removed Grass and silt.	Completed		
7/24/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018814-072413	Patsy Dixon	920 Yorkshire Rd.	Cleaned a Curb Inlet removed silt, grass and chopped grass out of basin.	Completed		
7/24/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018815-072413	Patsy Dixon	127 School Ave.	Cleaned a Curb Inlet removed trash and grass clippings.	Completed		AJ
7/24/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W018817-072413	Patsy Dixon	City Wide	Cleaned the following basins collected 1 cubic yards of debris: 3218 Jersey Ct - Curb Inlet removed trash and silt, 118 Bluffs Ct - Curb Inlet removed rocks and silt, 335 Ridge Rd - Catch Basin removed silt and grass, 314 Highland Ave - Curb Inlet removed wood and silt, 211 Lyons Ave - Curb Inlet removed grass and trash, 501 Lyons Ave - Curb Inlet removed car parts, 702 Kensington Ave - Curb Inlet removed sticks and silt.	Completed		AJ

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
7/24/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W018818-072413	Patsy Dixon	City Wide	Cleaned the following basins collected 2 cubic yards of debris: 605 Pinehurst Ave - Curb Inlet removed trash and silt, 203 Ingram Ave - Curb Inlet removed grass and silt, 316 Maple Ave - Curb Inlet removed cardboard and silt, 220 Piedmont Ave - Curb Inlet removed Trash and Car parts, 125 Roanoke Ave - Curb Inlet removed Asphalt chunks, 510 Braxton Ave - Curb Inlet removed trash and dirt.	Completed		
7/24/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W018819-072413	Patsy Dixon	City Wide	Cleaned the following basin collected 1/2 cubic yards of debris: 208 Crescent Ave - Curb Inlet removed silt and grass, 112 Hanover Ave - Curb Inlet removed grass and pineneedles, 220 Archer Ave - Curb Inlet removed Trash	Completed		
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019627-093013	Patsy Dixon	City Wide	Removed 1 cubic yards of debris from: 301 Fairmont Dr - Curb Inlet removed trash and sticks, 700 Forest View Dr - Curb Inlet removed silt and Car parts, 126 Swift Creek Ln - Catch Basin removed silt.	Completed		
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019628-093013	Patsy Dixon	City Wide	Removed 1 cubic yards of debris from: 3126 Woodlawn Dr - Curb Inlet removed silt and grass, 311 W. Ellerslie Ave - Curb Inlet removed Car parts, 200 Lenoir Ave - curb Inlet removed grass and trash, 409 Taswell Ave - Curb Inlet removed dirt and silt.	Completed		
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019635-093013	Patsy Dixon	City Wide	Removed 1/2 cubic yards of debris: 213 Comstock Dr - Curb Inlet removed silt, 249 Whitesand Ct - Curb Inlet removed silt and rocks, 107 Heron Run Rd - Curb Inlet removed silt and grass, 112 Heron Run Rd - Curb Inlet removed asphalt.	Completed		
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019636-093013	Patsy Dixon	City Wide	Removed 1/2 cubic yard of debris: 1907 Wakefield Ave - catch Basin removed grass clippings, A Ave at Boulevard - Curb Inlet removed car parts, 206 Hargrave Ave - Curb Inlet removed silt and gravel, 214 Moore Ave - Curb Inlet removed trash.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019638-093013	Patsy Dixon	318 Jefferson Ave.	Used flusher to cleaned and flush Curb Inlet removing 1 cubic yards of debris: silt, trash and leaves. Used 350 gallons of water	Completed		
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019639-093013	Patsy Dixon	501 Lyons Ave.	Used flusher to cleaned and flush Curb Inlet removing 1/2 cubic yards of debris: silt and grass clippings. Used 350 gallons of water	Completed		
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019640-093013	Patsy Dixon	206 Lee Ave.	Used flusher to cleaned and flush Curb Inlet removing 1/2 cubic yards of debris: silt, grass and grass clippings. Used 350 gallons of water	Completed		
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019641-093013	Patsy Dixon	Boulevard @ Suffolk Ave.	Cleaned silt, rocks, and asphalt removed 1/4 cubic yards, Utilities repaired a water leak in area, placed barrel over top catch basin will have to repair grate top catch basin at a late date.	Completed		
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019643-093013	Patsy Dixon	101 Lyons Ave.	Chopped small tree out of box growing in wall. Removed silt, asphalt and trash from basin collecting 1/2 cubic yards of debris	Completed		
10/18/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019787-101813	Patsy Dixon	1314 Canterbury Ln.	Removed pineneedles from a Curb Inlet	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
10/18/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019788-101813	Patsy Dixon	122 Lakeside Dr.	Removed pineneedles and sticks from a catch basin	Completed		
10/18/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019789-101813	Patsy Dixon	111 Lakeside Dr.	Removed pineneedles from a catch basin	Completed		
10/21/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019852-102113	Patsy Dixon	City Wide	Cleaned storm drains at Chesterfield @ Marvin Aves, Westover @ Hamilton Aves, behind Big Lots, Brookhill @ Forest View Drs.	Completed		
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019960-102913	Patsy Dixon	City Wide	Removed 1 cubic yard of debris: E. Westover at Hamilton Aves - Curb Inlet, Removed Leaves and trash, 218 Jefferson Ave - Curb Inlet Removed leaves, 304 Eastman Ave - Catch Basin removed leaves, 117 Orange Ave - Curb Inlet removed Car Parts, Dead end of Bermuda Ave - Curb Inlet removed trash and leaves, 3204 Dale Ave - Curb Inlet removed pine needles and trash.	Completed		
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019961-102913	Patsy Dixon	City Wide	Removed 2 cubic yards of debris: 1314 Canterbury Ln - Curb Inlet removed pineneedles, 2512 White Oak Ct - Curb Inlet removed a pile of leaves from top of inlet, 822 Old Town Dr - Curb Inlet removed sticks and leaves, 608 Fairlie Rd - Curb Inlet removed leaves and trash, 1101 Yacht Basin Dr - Curb Inlet removed leaves, asphalt and sticks, 1305 Yacht Basin Dr- Curb Inlet removed leaves, 1303 Yacht Basin Dr - Curb Inlet removed leaves.	Completed		
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W019962-102913	Patsy Dixon	City Wide	Removed 2 cubic yards of debris: 1907 Wakefield Ave - Catch Basin removed leaves, 1800 Block Boulevard behind Liberty Loans - Catch Basin removed grass clippings and leaves, Dale Ave Alley between Bermuda and Dale Aves - Catch Basin removed leaves, gum balls, Shuford Ave at Boulevard - Catch Basin removed trash, Boulevard South at 7-11 2-Catch Basins removed silt.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019963-102913	Patsy Dixon	City Wide	Removed 2 cubic yards of debris: 233 Huntington Rd - Curb Inlet removed leaves, sticks, 206 and 209 Windmere Dr - Curb Inlet removed leaves, 1016 Avon Ct - Curb Inlet removed card board.	Completed		AJ
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019967-102913	Patsy Dixon	City Wide	Removed 1/2 cubic yard of debris: 103 Royal Oak Ave - Curb Inlet removed leaves, car parts, Pickwick Ave Alley - Catch Basin grate top removed trash, leaves, silt, 520 Roslyn Ave - Catch Basin grate top removed leaves, silt.	Completed		
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019968-102913	Patsy Dixon	Ridge Rd @ Temple Ave.	Removed a bed box spring from Catch Basin with backhoe	Completed		
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019969-102913	Patsy Dixon	131 Jennick Dr.	Curb Inlet removed .5 cubic yard of debris Trash and car parts	Completed		
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019970-102913	Patsy Dixon	130 Temple Lake Ave.	Removed .5 cubic yard of debris from a Curb Inlet - Trash and wood.	Completed		
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019971-102913	Patsy Dixon	901 Lakeview Ave.	Removed .5 cubic yard of debris from Catch Basin Grate top - Leaves, Trash and silt.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019972-102913	Patsy Dixon	City Wide	Removed 1 cubic yard of debris: 601 Pinehurst Ave - Curb Inlet removed pineneedles, 203 Ingram Ave - Curb Inlet removed Pineneedles, 125 Roanoke Ave - Curb Inlet removed Car Parts, 1207 Meridian Ave - Catch Basin removed trash, 156 Windsor Ave - Curb Inlet removed silt and asphalt.	Completed		
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019973-102913	Patsy Dixon	Boulevard	Removed 1/2 cubic yard of debris: F Ave - Curb Inlet removed Car Parts, Trash, A Ave - Catch Basin Grate Top removed trash, Fairfax Ave - Curb Inlet removed card board.	Completed		
10/29/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019979-102913	Patsy Dixon	Conduit @ Yorkshire Rds.	Removed 1/2 cubic yards of grass, cardboard and Pineneedles from a Curb Inlet.	Completed		
6/2/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022586-060214	Patsy Dixon	City Wide	Removed 1/2 cubic yards of debris from: Newcastle Dr @ Keith Dr - Curb Inlet removed Trash and silt, 116 Essex Rd - Curb Inlet removed grass clippings and silt, Essex Rd @ Boulevard - Curb Inlet removed a cardboard box, 327 Ridge Rd - Catch Basin removed trash, sticks and silt. Snead Ave @ Temple Ave - Curb Inlet removed trash, silt and pine needles.	Completed		AJ
6/2/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022593-060214	Patsy Dixon	City Wide	Removed 1/4 cubic yard of debris from: Sherwood Dr @ Glenview Ave - Catch Basin removed car parts, 243 Lee Ave - Curb Inlet removed grass clippings and Silt, 113 Royal Oak Ave - Curb Inlet removed sticks, silt and gravel, 402 Washington Ave - Curb Inlet removed trash and silt.	Completed		
6/2/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022615-060214	Patsy Dixon	Chesterfield @ Marvin Aves	Cleaned storm drains	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/2/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022616-060214	Patsy Dixon	Forest View @ Sherwood Drs.	Cleaned storm drains	Completed		
6/2/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022617-060214	Patsy Dixon	Dale Ave.	Cleaned storm drains behind apartments	Completed		
6/2/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022618-060214	Patsy Dixon	Boulevard	Cleaned storm drain behind Big Lots	Completed		
6/2/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022619-060214	Patsy Dixon	107 Royal Oak Ave.	Cleaned storm drains	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022949-062614	Patsy Dixon	812 Keswick Rd.	Removed 1/2 cubic yard of debris Trash and silt	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022950-062614	Patsy Dixon	723 Old Town Dr.	Removed 1/2 cubic yard of debris Curb Inlet - Grass clipping and silt	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022951-062614	Patsy Dixon	701 Old Town Dr.	Removed 1/2 cubic yard of debris - Curb Inlet removed silt and trash	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022958-062614	Patsy Dixon	City Wide	Removed 1/4 cubic yards of debris from: 610 Lakeview Ave - Curb Inlet removed Trash and silt, 120 Charlotte Ave - Curb Inlet removed car parts and silt, 312 Fairfax Ave - Curb Inlet removed Car parts and silt, 125 Roanoke Ave - Curb Inlet removed cardboard and silt, 123 Wright Ave - Curb Inlet removed Grass clipping and silt.	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022960-062614	Patsy Dixon	City Wide	Removed 1/4 cubic yard of debris from: 211 Maple Ave - Curb Inlet removed trash and silt, 500 Braxton Ave - Curb Inlet removed Grass, silt and trash, 646 Battery Pl - Curb Inlet removed car parts and silt.	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022962-062614	Patsy Dixon	City Wide	Collected 1/2 cubic yards of debris from: 206 Stratford Dr -Curb Inlet removed asphalt and silt, 4438 Berkshire Ln - Curb Inlet removed silt and grass clipping, 118 Pinecliff Dr - Curb Inlet removed silt and trash bag, 151 Brandywine Rd - Crub Inlet removed gravel and trash, 106 Windmere Dr - Crub Inlet removed asphalt and silt.	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022963-062614	Patsy Dixon	City Wide	Collected 1/4 cubic yard of debris from: 114 Chesterfield Ave - Catch Basin removed silt and gravel, 116 Marvin Ave - Curb Inlet removed silt, grass and gravel, 318 Jefferson Ave - Curb Inlet removed silt and trash.	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022965-062614	Patsy Dixon	City Wide	Removed 1/4 cubic yards of debris from: 419 Bradsher Ave - Catch Basin removed trash and silt, 220 Archer Ave - Curb inlet removed trash, silt and grass, 200 Archer Ave - Curb Inlet removed a Trash bag.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022966-062614	Patsy Dixon	Boulevard	Removed 1/4 yard of debris from: A Ave - Catch Basin removed Trash and silt, Shuford Ave - Catch Basin removed Trash and silt, E Ave - Catch Basin removed Trash and silt.	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022968-062614	Patsy Dixon	206 Lee Ave.	Cleaned basin vacuumed and flushed - Curb Inlet removed silt, gravel and grass clippings	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022969-062614	Patsy Dixon	Cameron @ Bristol Aves	Cleaned basin vacuumed and flushed - Curb Inlet removed silt, gravel, asphalt and grass clippings removing 1/2 cubic yard of debris and used 250 gallons of water to flush	Completed		
6/26/2014	Drainage (Misc.)	Internal-Employee	W022972-062614	Patsy Dixon	233 Huntington Rd.	Sprayed for weeds and grass around outfall used 2 gallons of round up	Completed		
5/19/2014	Storm Drain Clogged	Phone	W022335-051914	Patsy Dixon		Removed pine needles from storm grate	Completed		
5/22/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022416-052214	Patsy Dixon	114 Chesterfield Ave.	Removed 1/4 cubic yards of debris from Catch Basin removed pineneedles and silt	Completed		
5/22/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022417-052214	Patsy Dixon	Sherwood Dr.	At 7-11 cleaned 2-catch basins removing 1/4 yards of debris , Pineneedles and Trash.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
5/22/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022420-052214	Patsy Dixon	233 Huntington Rd.	Cleaned C&G and Curb Inlet, slopemower cut brush down and back away from overhanging into street and C&G, cut 2 trees down there were close to falling across street, removed limbs and logs, used shovels, rakes and pitchforks to scrape leaves, vines, grass, dirt and silt from gutters. Removed 3 cubic yards of debris and blew street off with leaf blower.	Completed		AJ
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021966-043014	Patsy Dixon	604 Waterfront Dr.	Removed black trash bag of grass clippings from a Curb Inlet	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021967-043014	Patsy Dixon	102 Creek Point Ct.	Removed silt and leaves from a Curb inlet	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021968-043014	Patsy Dixon	529 Waterfront Dr.	Removed silt and trash from a Curb Inlet	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021974-043014	Patsy Dixon	407 Nottingham Dr.	Flushed a 1/2 cubic yard of debris from 2 curb inlets removing leaves, sticks and silt using 500 gallons of water	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021977-043014	Patsy Dixon	335 Ridge Rd.	Cleaned a catch basin removing trash and sticks	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal - Mayor	W021978-043014	Patsy Dixon	401 James Ave.	Removed trash bag of trash and silt from at Curb Inlet	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021979-043014	Patsy Dixon	502 Lyons Ave.	Removed 1/4 cubic yards of debris from a Curb Inlet, Car parts, gravel and silt	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021981-043014	Patsy Dixon	130 Temple Lake Dr.	Removed 0.10 cubic yards of debris, car parts, silt and grass clipping from a Curb Inlet	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021982-043014	Patsy Dixon	3801 Orkney Rd.	Removed .10 cubic yards of debris, asphalt and silt from a Curb Inlet	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021983-043014	Patsy Dixon	School Ave @ Conduit Rd	Removed .10 cubic yards of debris, Trash and pine needles from a Curb Inlet	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021984-043014	Patsy Dixon	127 School Ave.	Removed .10 cubic yards of debris Asphalt, trash and silt from a Curb inlet	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021985-043014	Patsy Dixon	3606 Hawick Dr.	Removed .10 cubic yards of debris, Grass clipping from a Curb Inlet.	Completed		
4/30/2014	Storm Drain Clogged	Phone	W021987-043014	Patsy Dixon	Battery Pl @ Dupuy Ave.	Removed 2-2x4's lumber from a curb inlet blocking it.	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021988-043014	Patsy Dixon	A Ave @ Boulevard	Removed trash and silt from a Catch basin	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021989-043014	Patsy Dixon	E. Westover Ave @ Conduit Rd.	Removed sticks and trash from a Curb Inlet	Completed		
5/1/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022053-050114	Patsy Dixon	City Wide	Cleaned storm storm sewer and grates at Chesterfield, Marvin, Wakefield, Sherwood Dr and Lakeview Ave.	Completed		
4/15/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021773-041514	Patsy Dixon	Sherwood Dr.	at 7-11 cleaned 2 grate top basins removed pine tags	Completed		AJ
4/15/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021774-041514	Patsy Dixon	Canterberry Ln @ Breezy Hill Dr	Cleaned grate inlet removed Pollen pods, leaves and sticks	Completed		AJ

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
4/15/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021775-041514	Patsy Dixon	Lakeside Dr.	Cleaned a curb inlet removed leaves and grass clippings	Completed		AJ
4/16/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021822-041614	Patsy Dixon	City Wide	Brookhill Ave @ Forest View Dr, 1023 Forest View Dr, Sherwood Dr @ 7-11, Colonial Apartment Alley, 1905 Wakefield Ave, 2209 Wakefield Ave, Maple @ Franklin Aves, Chesterfield @ Marvin Aves, 114 Chesterfield Ave.	Completed		
5/1/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022057-050114	Patsy Dixon	Conduit @ Hermitage Rd.	Collected 1/4 cubic yard of debris from a Curb Inlet removed Trash, Sticks and Car Parts	Completed		
5/1/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022058-050114	Patsy Dixon	Windmere @ Stratford Dr	Removed grass clippings and asphalt from a Curb Inlet	Completed		
1/6/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020589-010614	Patsy Dixon	Atlantic @ Charles Aves	Cleaned and flushed basins and pipe - Curb Inlet removed 1/2 cubic yard of leaves and silt	Completed		
1/6/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020590-010614	Patsy Dixon	E. Westover Ave @ Conduit Rd.	Cleaned 2 curb Inlets removed 1 cubic yards of leaves, silt, sticks, trash, gravel and asphalt used 1000 gallons of water.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
1/6/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020591-010614	Patsy Dixon	City Wide	Removed 1/2 cubic yard from: 101 Flintlock Dr - Curb Inlet removed leaves and dirt. 3126 Woodlawn - Curb Inlet removed trash and car parts, 210 Pickett Ave - Catch Basin removed kids toys did not throw away, 200 Lenoir - Curb Inlet removed trash, 402 Taswell - Curb Inlet removed leaves and car parts.	Completed		
1/6/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020592-010614	Patsy Dixon	City Wide	Removed 1 cubic yards of debris from: 115 Boykins - Catch Basin removed leaves and trash, Sherwood Dr at 7-11 - Grate top Catch Basin removed Pineneedsles and silt, 922 Forest View Dr - Curb Inlet removed leaves and gravel, 417 Nottingham Dr - Curb Inlet removed leaves, silt and trash.	Completed		
1/6/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020593-010614	Patsy Dixon	City Wide	Removed 1/2 cubic yard of debris from: 121 Yew Ave - Curb Inlet removed leaves and gravel, 115 George - Curb Inlet removed leaves, trash and silt, 304 Maple Grove - Curb Inlet removed leaves, bricks and asphalt.	Completed		
1/6/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020594-010614	Patsy Dixon	812 Keswick Rd.	Cleaned curb inlet removed leaves and sticks.	Completed		
1/6/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020595-010614	Patsy Dixon	530 Old Town Dr.	Cleaned a Curb Inlet removed Leaves, sticks and trash	Completed		
1/16/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020719-011614	Patsy Dixon	City Wide	Cleaned grates at Forest View and Sherwood Drs, Marvin Ave, Chesterfield Ave, Franklin Ave, Behind Colonial Apartments in alley moved leaves out of drainage ditch, Lakeview Ave coming into City from Chesterfield cleaned ditch holding water	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
1/16/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W020720-011614	Patsy Dixon	City Wide	Cleaned storm drains at Hamilton and Westover Aves, Sherwood Dr at 7-11, Marvin at Chesterfield Aves.	Completed		
1/16/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W020726-011614	Patsy Dixon	Sherwood Dr.	Flushed boxes at Sherwood bridge 4-Curb Inlet removed 2 cubic yards of debris and used 700 gallons of water	Completed		
1/16/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W020727-011614	Patsy Dixon	Sherwood Dr @ Springdale Ave.	Removed by flushing 1 cubic yards of Leaves and silt used 300 gallons of water	Completed		
1/16/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Phone	W020728-011614	Patsy Dixon	City Wide	Removed 2 cubic yards of debris from: 1013 Kensington Ave - Curb Inlet removed leaves and silt, 206 Lee Ave - Curb Inlet removed Trash, 235 Cameron Ave - Curb Inlet removed leaves and Car Parts, 114 Chesterfield Ave - Catch Basin grate top removed silt and pineneedles, 122 Lakeside Dr - Catch Basin grate top removed leaves, pineneedles and dirt.	Completed		
2/4/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W020890-020414	Patsy Dixon	1907 Wakefield Ave.	Removed trash from catch basin	Completed		
2/4/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W020891-020414	Patsy Dixon	Shufford Ave.	At Boulevard cleaned trash from Catch Basin	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
2/4/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W020892-020414	Patsy Dixon	A Ave.	At Boulevard clean trash and car parts from Catch Basin	Completed		
2/5/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W020905-020514	Patsy Dixon	Boulevard	Checked and cleaned if necessary storm drain form Chesterfield line to Peterburg line.	Completed		
2/5/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W020906-020514	Patsy Dixon	Ellerslie Ave.	Checked and cleaned if necessary from Boulevard to Conduit Rd.	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021169-022814	Patsy Dixon	100 W. Highland Ct.	Cleaned Curb inlet removed 1/4 cubic yard of sticks and card board	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021170-022814	Patsy Dixon	609 James Ave.	Cleaned a Curb Inlet removed leaves, sticks and gravel	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021171-022814	Patsy Dixon	604 Walnut Ave.	Cleaned a curb inlet removed Leaves and silt	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021176-022814	Patsy Dixon	117 Orange Ave.	Cleaned a Curb Inlet removed leaves and gravel 1/2 cubic yards of debris	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021177-022814	Patsy Dixon	215 Hillcrest Ave.	Cleaned a Catch Basin removed trash, silt and gravel	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021178-022814	Patsy Dixon	214 Moore Ave.	Cleaned a Curb Inlet removed trash and car parts	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021186-022814	Patsy Dixon	127 School Ave.	Cleaned a curb inlet removed asphalt and trash. collected .3 cubic yards of debris	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021187-022814	Patsy Dixon	967 Edinborough Dr.	Cleaned a Curb Inlet removed a black bag of leaves. Collected .3 cubic yards of debris	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021188-022814	Patsy Dixon	922 Jamestown Rd.	Cleaned a Curb Inlet removed trash, silt and car parts Collected .3 cubic yards of debris.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021189-022814	Patsy Dixon	121 Princeton Rd.	Cleaned a Curb Inlet removed pineneedles collected .3 cubic yards of debris	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021190-022814	Patsy Dixon	206 Windmere Dr.	Cleaned a Curb Inlet removed dirt, clay and gravel collected .3 cubic yards of debris.	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021191-022814	Patsy Dixon	4451 Berkshire Ln	Cleaned a Curb Inlet removed car parts Collected .17 cubic yards of debris	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021192-022814	Patsy Dixon	112 Heron Run Dr.	Cleaned a Curb Inlet removed silt, toys and a basketball Collected 0.17 cubic yards of debris.	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021193-022814	Patsy Dixon	249 Whitesand Ct.	Cleaned a Curb Inlet removed Newspapers and silt Collected .17 cubic yards of debris	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021194-022814	Patsy Dixon	Shuford Ave. @ Boulevard	Cleaned a Curb Inlet removed trash Collected .17 cubic yards of debris	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021195-022814	Patsy Dixon	E. Westover Ave @ Conduit Rd	Cleaned a Curb Inlet removed tree branches Collected .017 cubic yards of debris	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021196-022814	Patsy Dixon	1255 Briarcliff Dr.	Cleaned a Curb Inlet removed Leaves, trash and silt Collected .017 cubic yards of debris Severe Thunderstorm high winds and heavy rains warning	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021201-022814	Patsy Dixon	114 Chesterfield Ave.	Cleaned a Catch basin removed gravel, sand and asphalt collected 0.25 cubic yards of debris	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021204-022814	Patsy Dixon	Maple Ln @ Battery Pl	Cleaned 4 curb inlets at Intersection removed Leaves, trash, asphalt and silt collected 1/2 cubic yards of debris.	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021206-022814	Patsy Dixon	302 Hamilton Ave.	Cleaned a curb inlet removed trash and a bike wheel collected 0.18 cubic yards of debris.	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe	W021207-022814	Patsy Dixon	319 Jefferson Ave.	Cleaned a curb inlet removed Gravel. collected 0.18 cubic yards of debris.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021208-022814	Patsy Dixon	113 Royal Oak Ave.	Cleaned a curb inlet removed trash and books collected 0.18 cubic yards of debris.	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021209-022814	Patsy Dixon	319 Bristol Ave.	Cleaned a Catch Basin removed Leaves and silt collected 0.18 cubic yards of debris.	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021210-022814	Patsy Dixon	629 Pinehurst Ave.	Cleaned a curb inlet removed Pineneedles and trash collected 0.18 cubic yards of debris.	Completed		
3/4/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Phone	W021234-030414	Patsy Dixon	Arlington Ave @ Boulevard	Cleaned curb inlet removed small car tire collected .10 cubic yard of debris	Completed		
3/4/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021235-030414	Patsy Dixon	301 Jennick Dr.	Cleaned curb inlet removed Dead goose collected .10 cubic yard of debris	Completed		
3/4/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021236-030414	Patsy Dixon	208 Crescent Ave	Cleaned curb inlet removed pine needles and silt collected .10 cubic yard of debris	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/4/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021237-030414	Patsy Dixon	220 Archer Ave.	Cleaned curb inlet removed Cardboard and gravel collected .10 cubic yard of debris	Completed		
3/4/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021238-030414	Patsy Dixon	Archer Ave @ Boulevard	Cleaned curb inlet removed Trash and Car Parts collected .10 cubic yard of debris	Completed		
2/12/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020967-021214	Patsy Dixon	City Wide	Rain today checked and cleaned catch basins on Temple Ave, Conduit Rd, Ellerslie Ave, Chesterfield Ave.	Completed		
4/10/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021709-041014	Patsy Dixon	Chesterfield Ave.	Cleaned storm drain	Completed		
4/10/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021710-041014	Patsy Dixon	Boulevard	Cleaned debris from storm drain	Completed		
4/10/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021711-041014	Patsy Dixon	Conduit Rd	Cleaned storm drain	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
4/10/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021712-041014	Patsy Dixon	Wakefield Ave.	Cleaned storm drains	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021332-031314	Patsy Dixon	Brookhill @ Forest View Drs.	Cleaned storm drains	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021333-031314	Patsy Dixon	1023 Forest View Dr.	Cleaned storm drains	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021334-031314	Patsy Dixon	Sherwood Dr.	Cleaned storm drain behind 7-11 North	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021335-031314	Patsy Dixon	121 Lakeside Dr.	Cleaned storm drain	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021336-031314	Patsy Dixon	1905 Wakefield Ave.	Cleaned storm drain	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021337-031314	Patsy Dixon	Maple @ Franklin Aves.	Cleaned storm drains	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021338-031314	Patsy Dixon	Chesterfield @ Marvin Aves	Cleaned storm drains	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021339-031314	Patsy Dixon	114 Chesterfield Ave.	Cleaned storm drain	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021348-031314	Patsy Dixon	Hamilton @ Westover Aves	Cleaned storm drain	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021350-031314	Patsy Dixon	Brookhill @ Forest View Drs	Cleaned storm drain	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021351-031314	Patsy Dixon	Lakewood @ Sherwood Drs	Cleaned storm drain	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/27/2014	Storm Drain Clogged	Internal-Employee	W021440-032714	Patsy Dixon	Temple Ave @ Conduit Rd.	Cleaned storm drain	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021486-032714	Patsy Dixon	83 Sherwood Dr.	Removed 0.25 cubic yards of debris from Catch Basin - Silt and trash	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021487-032714	Patsy Dixon	922 Forest View Dr.	Removed 0.25 cubic yards of debris from Curb Inlet - gravel and asphalt.	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021488-032714	Patsy Dixon	303 Fairmount Dr.	Removed 0.25 cubic yards of debris from Curb Inlet - Sticks	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021489-032714	Patsy Dixon	102 Flintlock Dr.	Removed 0.25 cubic yards of debris from Curb Inlet - Leaves and silt	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021490-032714	Patsy Dixon	107 Brijadan Ln.	Removed 0.125 cubic yards of debris from Curb Inlet - Silt and Asphalt.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021491-032714	Patsy Dixon	112 Cedar Creek Ln.	Removed 0.125 cubic yards of debris from Curb Inlet - Trash bag of trash.	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021492-032714	Patsy Dixon	111 Lakeside Dr.	Removed 0.125 cubic yards of debris from Curb Inlet - Trash and sticks.	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021493-032714	Patsy Dixon	1301 Hermitage Rd.	Removed 0.1 cubic yards of debris from Curb Inlet - Pine Needles	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021494-032714	Patsy Dixon	1100 Wellington Rd	Removed 0.1 cubic yards of debris from Curb Inlet - Trash and Sticks	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021495-032714	Patsy Dixon	1306 Riveroaks Dr	Removed 0.1 cubic yards of debris from Curb Inlet - Silt and asphalt	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021496-032714	Patsy Dixon	4700 Ridgecrest Ln.	Removed 0.1 cubic yards of debris from Curb Inlet - Silt and Asphalt	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021497-032714	Patsy Dixon	212 Breezy Hill Dr	Removed 0.1 cubic yards of debris from Curb Inlet - Toys and Trash	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021498-032714	Patsy Dixon	120 Salisbury Rd.	Removed 0.125 cubic yards of debris from Curb Inlet - Pineneedles and silt	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021499-032714	Patsy Dixon	500 Huntington Rd.	Removed 0.125 cubic yards of debris from Curb Inlet - Silt and Sticks	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021500-032714	Patsy Dixon	119 Huntington Rd.	Removed 0.125 cubic yards of debris from Curb Inlet - Trash, Gravel and silt	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021501-032714	Patsy Dixon	157 Brandywine Rd	Removed 0.125 cubic yards of debris from Curb Inlet - Dirt and asphalt.	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021502-032714	Patsy Dixon	402 Lafayette Ave.	Removed 0.2 cubic yards of debris from Curb Inlet - Gravel and silt	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021503-032714	Patsy Dixon	302 Hamilton Ave.	Removed 0.2 cubic yards of debris from Curb Inlet - Trash and Car Parts	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021505-032714	Patsy Dixon	235 Cameron Ave.	Removed 0.2 cubic yards of debris from Curb Inlet - Leaves and Silt	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021506-032714	Patsy Dixon	104 Royal Oak Ave	Removed 0.2 cubic yards of debris from Curb Inlet - Silt and Gravel	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021507-032714	Patsy Dixon	Pickwick Ave Alley	Removed 0.2 cubic yards of debris from Catch Basin - Trash and silt	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021514-032714	Patsy Dixon	125 Roanoke Ave.	Removed 0.125 cubic yards of debris from Curb Inlet - Trash and Asphalt	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021515-032714	Patsy Dixon	162 Wright Ave.	Removed 0.125 cubic yards of debris from Curb Inlet - Car Parts, silt and gravel	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021517-032714	Patsy Dixon	220 Piedmont Ave.	Removed 0.1 cubic yards of debris from Curb Inlet - Trash and Asphalt	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021518-032714	Patsy Dixon	500 Braxton Ave.	Removed 0.1 cubic yards of debris from Curb Inlet - Trash, Silt and gravel	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021519-032714	Patsy Dixon	209 Crescent Ave.	Removed 0.1 cubic yards of debris from Curb Inlet - Leaves and gravel	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021520-032714	Patsy Dixon	111 Hanover Ave.	Removed 0.1 cubic yards of debris from Curb Inlet - Trash, Silt and asphalt	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021521-032714	Patsy Dixon	125 Carroll Ave.	Removed 0.1 cubic yards of debris from Curb Inlet - Small roll of carpet.	Completed		
10/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020010-103013	Patsy Dixon	Conduit Rd @ Temple Ave.	Center Island - Curb Inlet removed a large seat cushion	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
10/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020011-103013	Patsy Dixon	E. Westover Ave @ Conduit Rd	Curb Inlet - removed a cardboard box	Completed		
10/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020013-103013	Patsy Dixon	215 Homestead Dr.	Curb Inlet - removed a trash bag and sticks	Completed		
10/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020014-103013	Patsy Dixon	600 Pinehurst Ave.	Curb Inlet - Removed pineneedles	Completed		
10/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020015-103013	Patsy Dixon	Pickwick Ave.	In Alley - Catch Basin grate top, removed leaves and silt.	Completed		
11/4/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020049-110413	Patsy Dixon	City Wide	Collected 2 cubic yards of debris: 111 Lakeside Dr - Catch Basin removed pineneedles, 121 Lakeside Dr - Catch Basin Grate Top removed pineneedles, 336 Ridge Rd - Catch Basin removed trash and asphalt, 327 Ridge Rd - Catch Basin Grate Top removed leaves and gravel, 2102 Snead Ave - Catch Basin remove sticks, 208 Crestwood Dr - Curb Inlet removed pineneedles and silt, Essex Rd at Boulevard - Curb Inlet removed car parts.	Completed		
11/4/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020050-110413	Patsy Dixon	217 Dupuy Ave.	Removed .25 cubic yards of Pineneedles from a Curb Inlet.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
11/4/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020051-110413	Patsy Dixon	208 Crescent Ave.	Removed .25 cubic yards of sticks and trash from a Curb Inlet.	Completed		
11/4/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020052-110413	Patsy Dixon	403 Gould Ave.	Removed .25 cubic yards of Gravel, silt and trash from a Curb Inlet.	Completed		
11/4/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020053-110413	Patsy Dixon	116 Marvin Ave.	Removed .25 cubic yards of Pineneedles and silt from a Curb Inlet.	Completed		
11/8/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Phone	W020099-110813	Patsy Dixon	City Wide	Collected 1 cubic yards of debris: 922 Jamestown Rd - Curb Inlet removed Car parts, 106 Salisbury Rd - Curb Inlet removed Gravel and silt, 119 Huntington Rd - Curb Inlet removed Leaves, 201 Heron Run Dr - Curb Inlet removed Leaves and Silt, 249 White Sand Ct - Curb Inlet removed grass, gravel and silt.	Completed		
12/17/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020459-121713	Patsy Dixon	City Wide	Collected 1 cubic yards of debris from: 114 Chesterfield Ave - catch basin removed silt and pineneedles, 2207 Wakefield Ave - Catch basin removed straw, 1907 Wakefield Ave - Catch basin removed silt and leaves, 2208 Boulevard - Catch Basin removed trash and silt, 304 Maple Grove Ave - Curb Inlet removed trash, 812 Keswick Rd - Curb Inlet removed car parts and gravel.	Completed		
12/17/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020460-121713	Patsy Dixon	City Wide	Collected 1/2 cubic yards of debris from: 200 Archer Ave - Curb Inlet removed household trash in a bag, 212 Dupuy Ave - Curb Inlet removed pineneedles and trash, 116 Marvin Ave - Curb Inlet removed cardboard and plywood strips, 130 Temple Ave - Curb Inlet removed a dead goose.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
12/17/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020463-121713	Patsy Dixon	City Wide	Collected 1/4 cubic yards of debris from: 105 Lexington Dr - Curb Inlet removed Leaves, 1201 Clifton Dr - Curb Inlet removed Asphalt and car parts, 1212 Dana Ln - Curb Inlet removed leaves and silt, 1249 Dana Ln - Curb Inlet removed kids toys and a Basketball.	Completed		
12/17/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020467-121713	Patsy Dixon	2207 Wakefield Ave.	Collected 1/2 cubic yard of debris Shoveled straw out of basin	Completed		
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020325-120313	Patsy Dixon	City Wide	Removed 1 cubic yard of debris from: 114 Boykins Ave - Catch Basin removed sticks and silt, 101 Friar Ln - Curb Inlet removed Leaves and gravel, 200 Lakeview Ave - Curb Inlet removed trash and leaves, 404 Lakeview Ave - Catch Basin removed Cardboard, Car parts and sticks, 1907 Wakefield Ave - Catch Basin Grate Top removed Leaves and silt, 156 Windsor Ave - Curb Inlet removed trash and sticks	Completed		
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020327-120313	Patsy Dixon	215 George Ave.	Cleaned Curb Inlet removed Trash	Completed		
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Email	W020328-120313	Patsy Dixon	308 Eastman Ave.	Cleaned Catch Basin removed gravel and silt	Completed		
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020333-120313	Patsy Dixon	City Wide	Removed 1/2 yard of debris from: 234 Cameron Ave - Curb Inlet removed Trash and sticks, 302 Hamilton Ave - Curb Inlet removed car parts, 104 Royal Oak Ave - Curb Inlet removed toys, 113 Royal Oak Ave - Curb Inlet removed asphalt and sticks, 129 Washington Ave- Curb Inlet removed asphalt and gravel.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020336-120313	Patsy Dixon	Boulevard	South end at 7-11 removed 1/2 cubic yard of debris from 2 catch basin removed silt and dirt.	Completed		
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020338-120313	Patsy Dixon	City Wide	Removed 1/2 cubic yard of debris from: 509 Roslyn Ave - Curb Inlet removed Cardboard Box, 605 Pinehurst Ave - Curb Inlet removed sticks, 403 Gould Ave - Curb Inlet removed 2 hub caps, 114 Chesterfield Ave Catch Basin removed silt, 200 Archer Ave - Curb Inlet removed Cardboard box and newspaper, 214 Dupuy Ave - Catch Basin removed trash and gravel	Completed		
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020341-120313	Patsy Dixon	City Wide	Removed 1 cubic yard of debris from: 318 Jefferson Ave - Curb Inlet removed leaves, Conduit Rd at Ivey Ave - Curb Inlet removed leaves, Lynchburg Ave at Conduit Rd - Curb Inlet removed leaves, 111 Lakeside Dr - Catch basin removed Pineneedles, 121 Lakeside Dr - Catch Basin removed pineneedles.	Completed		
2/20/2014	Drainage Ditch need cleaning	Phone	W021034-022014	Patsy Dixon	901 Lakeview Ave.	Used shovels and rakes to clean spillway and 2 catch basins in front of property removed 1/2 cubic yard debris leaves, dirt and sand	Completed		
12/23/2013	Storm Drain Clogged	Phone	W020491-122313	Patsy Dixon	1909 Wakefield Ave.	Cleaned grate top catch basin removed 1/2 cubic yards of leaves water went down	Completed		
12/31/2013	Street Flooding	Phone	W020529-123113	Patsy Dixon	Lakeside Dr.	Unstopped drain in street clogged with leaves and pineneedles - After Hours Overtime	Completed		
1/14/2014	Storm Drain Clogged	Phone	W020665-011414	Patsy Dixon	311 Brookedge Dr.	Used shovels and rakes removed leaves from drain water went down	Completed		
10/7/2013	Storm Drain Repairs	Phone	W019732-100713	Patsy Dixon	204 Lafayette Ave.	Placed concrete lid back on basin, cleaned sticks, grass clipping out of basin resident at 204 ran over lid with car	Completed		
6/12/2014	Street Flooding	Phone	W022749-061214	Patsy Dixon	121 Lakeside Dr	Used rakes to remove pine needles blocking catch basin grate top removed a 5 gallon bucket water went down	Completed		
7/9/2013	Curb and Gutter Cleaning	Web	W018505-070913		311 Brookedge Drive	Cleaned grate top Catch Basin of leaves, sticks and grass removed 1/2 cubic yards of debris. Checked basin on Spring Dr they are Clear. There are no Concrete gutter on Spring Dr.	Completed		

1500 - Clean Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
7/8/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Phone	W018498-070813	Alan Thornton	109 Elmwood Dr	Used flusher to flush and vacuum inlet and pipe removed 1 cubic yards of debris and used 500 gallons of water	Completed		
8/6/2013	Storm Drain Clogged	Phone	W019041-080613	Patsy Dixon	218 Orange Ave.	Shovel gravel out of the adjacent inlet that could have been possibly not allowing water to flow removed 2-5 gallon buckets of gravel. Will flush lines whenever time permits.	Completed		AJ
10/16/2013	Storm Drain Clogged	Phone	W019763-101613	Patsy Dixon	212 Lyons Ave.	Used flusher to vacuum and flush basin pipe. Collected 1 cubic yards of debris, leaves, grass clipping and sticks, Lawn service doing work at this address admitted putting debris in basin he said that the was full and he could not get any more in there.	Completed		
2/25/2014	Storm Drain Clogged	Phone	W021129-022514	Patsy Dixon	658 Battery Pl	Removed a medium size suit case from basin blocking an 18" pipe. Checked basins in area nothing else stopped up.	Completed		
3/24/2014	Storm Drain Clogged	Phone	W021406-032414	Patsy Dixon	120 Charlotte Ave.	Used paper picker to remove household trash from curb Inlet. Resident leaves trash can on top of basin as a place to store can. Trash can overflowing and plastic bags of trash stacked beside can on curb inlet constantly. Removed 1/4 cubic yards of debris.	Completed		
4/7/2014	Street Flooding	Phone	W021676-040714	Patsy Dixon	646 Battery Pl	Used pitchfork to remove leaves and sticks from inlet and 3 adjacent inlets at Battery Place and Maple Ave. removed 2 barrels full of debris	Completed		
5/12/2014	Storm Drain Clogged	Phone	W022190-051214	Patsy Dixon	Flintlock Dr.	Used flusher to flush and vacuum grass clipping, sticks and leaves from basin. Cleaned 3 Curb inlets in area removing a total 1/2 yards of debris and used 500 gallons of water.	Completed		
5/19/2014	Storm Drain Clogged	Phone	W022343-051914	Patsy Dixon	217 Orange Ave.	Used flusher to flush and vacuum pipes and basins at 220 and 221 Orange Ave removed 1 cubic yard of silt, trash, leaves and gravel using 500 gallons of water to flush and clean catch basin	Completed		

1501 - Repair Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/30/2013	Storm Drain Repairs	Internal-Employee	W019323-083013	Patsy Dixon	1016 Avon Ct.	Used 1/2 bucket of hydraulic cement to patch box wall	Completed		

1501 - Repair Catch Basin

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
9/30/2013	Sinkhole	Internal-Employee	W019626-093013	Patsy Dixon	113 Tudor Rd.	Used 1/2 bag of cement to fix holes inside box	Completed		
9/30/2013	Sinkhole	Internal-Employee	W019629-093013	Patsy Dixon	720 Old Town Dr.	Used 1/2 bucket hydraulic cement to fill hole around pipe that takes water out of basin.	Completed		
9/30/2013	Sinkhole	Internal-Employee	W019632-093013	Patsy Dixon	131 Jennick Dr.	Used 1-94lb bag of cement to repair floor.	Completed		
9/30/2013	Sinkhole	Internal-Employee	W019634-093013	Patsy Dixon	2601 Bent Oaks Dr.	Pulled up 16' of C&G next to Curb Inlet, repaired box on outside wall, placed 6 tons of Crush and Run stone in hole and tamped. Removed 1 dump truck load of dirt and C&G.	Completed		
10/29/2013	Storm Drain Repairs	Internal-Employee	W019974-102913	Patsy Dixon	204 Lafayette Ave.	Basin wall had hole used hydraulic cement 1/2 of 5 gallon bucket to repair.	Completed		
10/29/2013	Storm Drain Repairs	Internal-Employee	W019975-102913	Patsy Dixon	101 Red Fox Rd.	Basin wall around pipe leading out of basin had a hole used 1/2 of 5 gallon bucket of hydraulic cement to repair	Completed		
3/27/2014	Storm Drain Repairs	Internal-Employee	W021511-032714	Patsy Dixon	Lakeview Ave @ Boulevard	Repaired catch basin used 1/2 bucket of hydraulic cement to patch concrete wall in basin, used 1-bag of cold patch to patch street beside of basin and tamped area.	Completed		
12/20/2013	Sinkhole	Phone	W020478-122013	Patsy Dixon	113 Tudor Rd	Used 1/2 bucket of hydraulic cement to patch hole in basin was causing cave in around basin, placed 4 5 gallon buckets of stone in holes and covered with dirt.	Completed		

1503 - Clean Drainage Ditch

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/2/2013	Drainage Ditch need cleaning	Internal-Employee	W019003-080213	Patsy Dixon	555 Fairfax Ave.	On 7/29/13 started cleaning concrete ditch removed 32 tons of grass, silt, dirt, trash and rocks. On 7/30/13 Finished cleaning removed 16 tons of grass, silt, dirt, trash and rocks.	Completed		
8/6/2013	Drainage Ditch need cleaning	Internal-Employee	W019036-080613	Patsy Dixon	White Bank Rd.	Finished cleaning ditch on right hand side of road	Completed		

1503 - Clean Drainage Ditch

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/6/2013	Drainage Ditch need cleaning	Internal-Employee	W019037-080613	Patsy Dixon	Walnut Ave.	Removed fallen tree from railroad bed and cleaned the drainage ditch at the dead end.	Completed		
7/31/2013	Drainage Ditch need cleaning	Internal-Employee	W018936-073113	Patsy Dixon	White Bank Rd.	Started cleaning ditch on right side approx. 200'	Completed		
7/8/2013	Storm Drain Clogged	Internal-Employee	W018460-070813	Patsy Dixon	1214 Boulevard	Cleaned drainage ditch - weedeated and picked up trash collected 1 cubic yard of trash	Completed		
7/8/2013	Drainage Ditch need cleaning	Internal-Employee	W018463-070813	Patsy Dixon	Bruce Ave.	Cleaned an 8" meter pipe removed 1 cubic yards rocks and trash.	Completed		
7/8/2013	Drainage Ditch need cleaning	Internal-Employee	W018470-070813	Patsy Dixon	Lakeview Ave.	Between Vance and Woodlawn Aves weedeated ditch so water will flow to basin residnets do not maintain tall thick grass in ditch and also blow grass clippings from mower into ditch blocking water. 1 bag of trash removed.	Completed		
7/8/2013	Drainage Ditch need cleaning	Internal-Employee	W018495-070813	Patsy Dixon	Charlotte Ave.	At the dead end removed 1/2 cubic yard of leaves and sticks from a 24" concrete pipe	Completed		
7/18/2013	Drainage Ditch need cleaning	Internal-Employee	W018716-071813	Patsy Dixon	Bruce Ave.	Used loader to clean ditch, removed rocks, dirt, silt, grass and trash from ditch, 2 dumptruck loads 16 cubic yards of debris	Completed		
7/24/2013	Drainage Ditch need cleaning	Internal-Employee	W018822-072413	Patsy Dixon	Lakeview Ave @ Cabell Dr	Weedeated tall grass in drainage ditch to City Limits	Completed		
9/30/2013	Drainage Ditch need cleaning	Internal-Employee	W019630-093013	Patsy Dixon	Holly @ Charles Aves	Cut grass in drainage ditch with weedeaters.	Completed		
9/30/2013	Drainage Ditch need cleaning	Internal-Employee	W019631-093013	Patsy Dixon	Waterfront Dr.	Cut high grass and weeds with weedeaters at in flow of pipe	Completed		
9/30/2013	Drainage Ditch need cleaning	Internal-Employee	W019644-093013	Patsy Dixon	Lakeview Ave.	Used bush hog to Cut a pathway along Old Town Creek o get to downed tree across creek at the dead end of Lundy Ave called in by a citizen, Will use backhole to get tree and dispose of at a later date.	Completed		

1503 - Clean Drainage Ditch

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
9/30/2013	Drainage Ditch need cleaning	Internal-Employee	W019645-093013	Patsy Dixon	200 Lenoir Ave.	Used bush hog to cut ditch, used weedeater to trim tall grass around basin and inflow of pipe leading to basin from ditch.	Completed		
10/29/2013	Drainage Ditch need cleaning	Internal-Employee	W019978-102913	Patsy Dixon	Lakeview Ave.	Weedeated ditch, picked up a 1/2 bag of trash, shoveled out ends of driveway pipe removed 1/2 cubic yards of debris from Vance Ave to Woodlawn Ave.	Completed		
6/16/2014	Drainage Ditch need cleaning	Phone	W022781-061614	Patsy Dixon	Helen Ave.	Cleaned ditch removed trash and cut, high grass and bushes down	Completed		
6/2/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022584-060214	Patsy Dixon	Swift Creek Ln.	Used bush hog, chainsaw, weedeater and bush ax to cut brush and small trees down, chewed up brush and small trees with bush hog.	Completed		
6/26/2014	Drainage Ditch need cleaning	Internal-Employee	W022964-062614	Patsy Dixon	Branders Bridge Rd.	Used motorgrader and loader to clean silt, dirt and grass from ditch beside street on both sides at City Limits. Placed debris in low area at the edge of wood and spread with bucket on loader. removed 3 cubic yards of debris.	Completed		
6/26/2014	Drainage (Misc.)	Internal-Employee	W022974-062614	Patsy Dixon	3107 Boulevard	Checked drainage ditch behind Martins Grocery, found large grease spot in rear parking lot that flowed down valley gutter along edge of parking lot leading to railroad ditch along tracks. could smell old grease in pool of water next to railroad. pine needles in area absorbed most of grease, there was a grease stain in concrete valley gutter leading to outfall.	Completed		
5/22/2014	Drainage Ditch need cleaning	Phone	W022406-052214	Patsy Dixon	Wright Ave.	At the dead end removed stickes and cut up a fallen dead pine There are no standing water in this area. Used chainsaw, rakes and pitchfork. See attachment tab for additional information	Completed		
5/22/2014	Drainage Ditch need cleaning	Phone	W022407-052214	Patsy Dixon	Lenoir @ Davis Aves	Trimmed area with weeddeater, cut grass with John Deere Bush hog, and blew grass out of gutters and street.	Completed		
5/22/2014	Drainage Ditch need cleaning	Internal-Employee	W022411-052214	Patsy Dixon	Waterfront Dr.	Sprayed drainage ditch for weeds and grass using 15 gallons of roundup	Completed		
5/22/2014	Drainage Ditch need cleaning	Internal-Employee	W022412-052214	Patsy Dixon	113 W. Highland Ct.	Sprayed drainage ditch for weeds and grass using 2 gallons of roundup	Completed		

1503 - Clean Drainage Ditch

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
5/22/2014	Drainage Ditch need cleaning	Internal-Employee	W022413-052214	Patsy Dixon	Wakefield Ave.	Sprayed, cut and trimmed grass and weeds beside of Park using 5 gallons of roundup.	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021969-043014	Patsy Dixon	518 Waterfront Dr.	Used pitchforks and shovels to pull sticks and pompas grass blocking a 48" concrete pipe removing 1 flatbed load of debris	Completed		
4/30/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021971-043014	Patsy Dixon	White Bank Rd.	On 4/2/14 Used motorgrader, loader and dump truck to clean ditch of sticks, leaves and silt removed 24 cubic yards of debris. On 4/3/14 Removed 24 cubic yards of sticks, Leaves and silt from ditch. On 4/4/14 Completed cleaning ditch removing 16 cubic yards of debris Sticks, Leaves and silt.	Completed		
4/15/2014	Drainage Ditch need cleaning	Internal-Employee	W021776-041514	Patsy Dixon	Lakeview Ave.	Coming into the City removed trash from the drainage ditch.	Completed		AJ
2/28/2014	Drainage Ditch need cleaning	Internal-Employee	W021168-022814	Patsy Dixon	113 and 119 Highland Ct.	Removed branches and a large amount of cinder blocks	Completed		
2/28/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021202-022814	Patsy Dixon	Lakeview Ave.	At City Limits cleaned leaves from ditch collected .025 cubic yards of debris	Completed		
2/12/2014	Drainage Ditch need cleaning	Internal-Employee	W020970-021214	Patsy Dixon	Boulevard	Cleaned ditch behind Big Lots	Completed		
3/13/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W021349-031314	Patsy Dixon	Plumtree Ave.	Cleaned drainage ditch at the dead end	Completed		

1503 - Clean Drainage Ditch

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021508-032714	Patsy Dixon	301 Charles Dimmock Pkwy	Animal Shelter Entrance and Park Drainage ditch removed 2 cubic yards of debris, used slope mower to cut brush from ditch.	Completed		
3/27/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W021509-032714	Patsy Dixon	Roslyn Park Walk Trail	Removed 2 cubic yards of debris from channel a beaver dam used backhoe at Walk Bridge, brush, small logs, silt and leaves	Completed		
10/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W020012-103013	Patsy Dixon	Charlotte Ave.	Concrete ditch - Removed a Family dollar shopping cart, washed it and return to store. Spoke to Store Manager	Completed		
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W020329-120313	Patsy Dixon	Swift Creek Ln.	At Old railroad bed Used chainsaw to cut large pine tree leaning over roadway leading to drainage area removed 1 dump truck load. Also used bush hog to cut brush and samll trees down along drainage area.	Completed		
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W020332-120313	Patsy Dixon	Branders Bridge Rd.	On 11/12/13 started cleaning drainage ditch culverts, used backhoe removed 10 cubic yards of silt, leaves and dirt from channel. On 11/13/13 finished removing another 10 cubic yards of debris, silt, leaves, dirt pushed debris into wood and smoothed out work area with backhoe.	Completed		
12/3/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employe e	W020335-120313	Patsy Dixon	Newcastle Dr.	At the dead end cut brush and tall grass with bush hog, used backhoe to pull a basketball goal out of the Old Town Creek.	Completed		

1503 - Clean Drainage Ditch

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
12/6/2013	Drainage Ditch need cleaning	Phone	W020375-120613	Patsy Dixon	555 Fairfax Ave.	On 12/2/13 started cleaning ditch cut down bush and small trees with chainsaw and bush hog tractor. On 12/3/13 Finished cleaning ditch cut back brush with slopemower.	Completed		
3/20/2014	Drainage (Misc.)	Phone	W021387-032014	Patsy Dixon	Hemlock Ave.	Removed trash from dead end on river bank	Completed		
4/21/2014	Drainage Ditch need cleaning	Phone	W021862-042114	Patsy Dixon	514 Windmere Dr.	Used backhoe and straps to pull a 8-sections of bowling lane out of ditch.	Completed		
6/17/2014	Street Flooding	Phone	W022827-061714	Patsy Dixon	1214 Boulevard	removed dirt and grass from flow line so water could flow - after hours Overtime	Completed		
9/9/2013	Drainage Ditch need cleaning	Phone	W019405-090913	Patsy Dixon	208 Biltmore Dr.	cut and trimmed ditch	Completed		
7/29/2013	Drainage Ditch need cleaning	Phone	W018897-072913	Patsy Dixon	510 Battery Pl	On 8/30/13 Investiaged area with Mike. Need to cut brush down behind 510 and 512 Battery Place to allow water to drain this is City property will try to correct problem next week. On 9/4/13 started at 506 to 516, used mini excavator to clean ditch, used pruner and pole saw to cut back brush, used 2 weedeaters to cut tall grass, removed 8 cubic yards of debris: brush, silt, dirt and roots.	Completed		
10/9/2013	Standing Water	Phone	W019743-100913	Patsy Dixon	113 Birch Ave.	Removed 2 cubic yards of debrs: Used loader to scrape grass and gravel along side of road. This has been an on going problem since neighborhood was developed *NO C&G in area or basins.	Completed		
8/13/2013	Standing Water	Internal-Employee	W019103-081313	Patsy Dixon	3100 Holly Ave.	Used weedeaters to cut tall weeds and grass down to bare dirt in ditch, took shovels and scraped silt and trash out of gutter at the end of driveway removed 1 cubic yards of grass, trash, silt and rocks.	Completed		
4/11/2014	Drainage Ditch need cleaning	Phone	W021729-041114	Mike West	406 MACARTHUR AVE	Used paper pickers to removed 3 bags of trash from drainage ditch	Completed		AJ & Linwood
11/1/2013	Storm Drain Clogged	Phone	W020043-110113	Patsy Dixon	Meridian Ave.	Used backhoe to pull brush out of culvert and hauled away to the Recycling Center collected 1/2 flatbed dump truck load	Completed		
2/3/2014	Storm Drain Clogged	Phone	W020872-020314	Patsy Dixon	230 Eastman Ave.	Used loader, dumptruck and shovels to scrape the edge of the road to allow water to drain to Catch Basin. There are no C&G in this area. Basins cheked out ok.	Completed		
6/30/2014	Drainage Ditch need cleaning	Phone	W023017-063014	Patsy Dixon	508 Lakeview Ave.	Cut ditch with slopemower, weedeated behind above address and sprayed ditch to killed weeds and high grass.	Completed		

1503 - Clean Drainage Ditch

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
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1504 - Clean Drainage Pipe

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
7/8/2013	Storm Drain Clogged	Internal-Employee	W018455-070813	Patsy Dixon	524 Roslyn Ave.	12" Concrete pipe in back yard removed sticks, a log and grass	Completed		
7/8/2013	Drainage Ditch need cleaning	Internal-Employee	W018477-070813	Patsy Dixon	E Ave @ Boulevard	Used loader to clean ditch removed 4 cubic yards of gras and dirt	Completed		
9/4/2013	Drainage Ditch need cleaning	Internal-Employee	W019373-090413	Patsy Dixon	Hermitage Rd.	Cut tall grass and weeds behind house from Duke of Gloucester St to Conduit Rd	Completed		
9/30/2013	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W019637-093013	Patsy Dixon	Lakeview Ave.	At Old Railroad Bed - Curb Inlet used polesaw, weed eaters, pruners to cut limbs, grass and brush down at outflow pipe from Curb Inlet.	Completed		
6/17/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022814-061714	Patsy Dixon	West Westover Ave.	Started cleaning outfall at the dead end that is blocked by rocks.	Completed		
6/26/2014	Drainage Ditch need cleaning	Internal-Employee	W022975-062614	Patsy Dixon	Conduit Rd.	Used loader to clean drainage ditch between Charles Ave and Home Depot Entrance removed 4 cubic yards of silt and dirt from top and around 2 catch basin.	Completed		
1/9/2014	Storm Drain Clogged	Internal-Employee	W020622-010914	Patsy Dixon	3101 Greenwood Ave.	Used flusher to vacuum and flush a 15" concrete pipe removed 1 cubic yards of leaves, straw and dirt.	Completed		

1504 - Clean Drainage Pipe

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
2/5/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020907-020514	Patsy Dixon	Chesterfield Ave.	At Carroll Ave checked and cleaned storm grate	Completed		
2/5/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020908-020514	Patsy Dixon	Boulevard	Behind Big Lots cleaned grate	Completed		
2/5/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W020909-020514	Patsy Dixon	Sherwood Dr.	Checked and cleaned grate beside 7-11	Completed		
6/20/2014	Storm Drain Clogged	Walk-In	W022863-062014	Patsy Dixon	Covington Rd.	Used flusher to vacuum out basin and flushed pipe. Removed 1/2 cubic yard of debris, silt, rock and grass clippings	Completed		
1/15/2014	Storm Drain Clogged	Phone	W020679-011514	Patsy Dixon	301 and 303 Charlotte Ave.	Used flusher to flush and vacuum 1 cubic yards of debris leaves, dirt and trash from an 8" pipe	Completed		
12/23/2013	Storm Drain Clogged	Phone	W020494-122313	Patsy Dixon	135 Pickwick Ave.	Used flusher to flush a 12" plastic line 100' of pipe, used 500 gallons of water. Ppipe is not connected to any basin pipe empties into a small drainage ditch. Removed 1 cubic yard of leaves and dirt. water went down.	Completed		
6/12/2014	Street Flooding	Phone	W022759-061214	Patsy Dixon	404 Lakeview Ave.	unstopped pipe	Completed		
7/22/2013	Drainage (Misc.)	Phone	W018771-072213	Stephen Edwards	5118 Salem Court	Cleaned around a 6" plastic pipe at basin, removed 1 cubic yards of debris Leaves and grass clippings.	Completed		

1505 - Repair Storm Sewer

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
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1505 - Repair Storm Sewer

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/30/2013	Sinkhole	Internal-Employee	W019309-083013	Patsy Dixon	3267 Longhorn Dr.	Sinkhole in front of Curb Inlet Used read mixed concrete to patch cracks and holes in wall of inlet and used 1 bag of cold patch asphalt in street.	Completed		
7/25/2013	Storm Drain Repairs	Internal-Employee	W018828-072513	Patsy Dixon	Boulevard @ W. Westover Ave.	Miller pipe Company Broke a 24" teracoda pipe storm water they used their backhoe to dig down to broken pipe. We used 2-bags of cement @ \$9.48 each, 1-5 gallon bucket of plug cement @ \$31.25. a large piece of thick of flashing to patch pipe @ \$22.88. Miller Pipe Co. backfilled and patched road. Southbound right hand lane at Traffic light.	Completed		
10/2/2013	Storm Drain Repairs	Internal-Employee	W019672-100213	Patsy Dixon	Fischer @ Westover Aves.	On 9/30/13 Removed old materials and layed 8" ductile iron storm drain pipe 34'. Poured a 40" x 40" x 8" concrete footing for grate top inlet. Backfilled with 16 tons 21a and 6 tons #5 stone and tamped area. On 10/1/13 formed and poured a 24 x 24 x 16 deep grate top inlet. Started forming the front wall to repair inlet on opposite side of street. On 10/2/13 Removed 18' of gutter pan at handicap ramp, set forms and poured new walls and mouth on exsiting catch basin, Used 2 bags of cement, stone, sand and mixed in mixer. On 10/3/13 Mixed 7 bags of cement, stone, sand in mixer, poured back 29' gutter pan in front of handicap ramp and gutter leading to new basin, poured back gutter pan in front of old catch basin and set grate in frame to new basin.	Completed		
5/28/2014	Storm Drain Repairs	Internal-Employee	W022480-052814	Patsy Dixon	124 and 130 Westover Ave.	On 5/20/14 Removed top of drainage box 4' wide, 25 1/2' long formed to repour. On 5/21/14 Picked up rebar, tied in top of drainage structure, and installed manhole frame to improve bracing on forms. On 5/22/14 Poured concrete 25' x 4' x 8" top of draiange structure which is also sidewalk in this area. Picked up cement all from Home Depot. On 5/23/14 stripped in and outside forms, backfilled with stone and topsoil.	Completed		
5/28/2014	Storm Drain Repairs	Internal-Employee	W022481-052814	Patsy Dixon	122 and 124 W Westover Ave.	On 5/27/14 Removed concrete top and ciderblock back wall that had collapsed, cut large tree roots out of the wall of box wth jackhammer and sawsall.	Completed		
4/15/2014	Sinkhole	Phone	W021780-041514	Patsy Dixon	407 Nottingham Dr.	Storm sewer cave in, saw cut around problem to dig up and repair tomorrow	Completed		AJ

1505 - Repair Storm Sewer

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
5/15/2014	Sinkhole	Phone	W022265-051514	Patsy Dixon	105 Royal Oak Ave	On 5/16/14 investigated area, climbed down in basin in area of pipe, pipe in clear but is up and down in area of holes, placed 2 cones in area will call MU to mark for repairs to be done at a later date. On 6/20/14 work order printed again to remind Stormwater crew. On 6/26/14 Saw cut road and C&G. On 6/27/14 Used backhoe to remove Asphalt and C&G, dug down 18" found seperated pipe, removed 10 cubic yards of debris, Asphalt and C&G. Mixed 2 bgs Cement & Sand, placed 4 tons #5 stone around & on top of pipe, placed 4 tons Crush & Run stone on top of the #5 stone and tamped, placed 2 tons fill dirt on top of Crush & Run stone and smoothed. Placed cones around work area until Monday. On 6/30/14 Used backhoe to pull up and remove remaing C&G and Sidewalk, scratched out entrance to alley to place asphalt to keep silt and gravel washing into street, Found a stormsewer manhole that was covered up looks good. Used 2 tons of asphalt in alley.	Completed		

1506 - Repair Drop Inlet

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/29/2013	Sinkhole	Phone	W019284-082913	Patsy Dixon	2600 Bent Oaks Drive	On 8/30/13 Investigated area placed cone over hole and caution tape around area. Marked C&G for MU ticket, C&G around Curb Inlet broken and cavin in causing hole behind curb. On 9/11/13 pulled up C&G on both side of Curb Inlet, repaired box wall in and outside, placed 6 tons of crush and run stone back in hole and tamped. Removed 2 dump truck loads of dirt and C&G.	Completed		

1507 - Clean Curb and Gutters

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
10/8/2013	Curb and Gutter Cleaning	Web	W019737-100813		Brian Lane	Cut up grass in gutters removed with sweeper	Completed		
10/14/2013	Curb and Gutter Cleaning	Web	W019757-101413		937 Edinborough Dr	Removed a few dead cedar tree limbs	Completed		

1507 - Clean Curb and Gutters

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
12/10/2013	Storm Drain Clogged	Phone	W020392-121013	Patsy Dixon	4806 Conduit Rd.	Used rakes to remove leaves from gutter water went down	Completed		
8/30/2013	Curb and Gutter Cleaning	Internal-Employee	W019319-083013	Patsy Dixon	Maple Ave.	At Boulevard used shovel to break up dirt and grass in gutter, used weedeater to cut grass over hanging curb and sidewalk sweeper picked up debris removing 1 cubic yards.	Completed		
8/30/2013	Curb and Gutter Cleaning	Internal-Employee	W019321-083013	Patsy Dixon	Fairfax Ave.	At Boulevard near Old Texaco Gas Station chopped grass out of cracks with shovel, weedeated grass along sidewalk removed 1 cubic yards of debris grass and dirt sweeper picked up debris from street.	Completed		
8/2/2013	Curb and Gutter Cleaning	Internal-Employee	W018987-080213	Patsy Dixon	124 Sherwood Dr	Removed 1/2 cubic yards of debris grass clipping from roadway someone had blew into street after cutting yard	Completed		
7/8/2013	Street Sweeping	Internal-Employee	W018459-070813	Patsy Dixon	City Wide	Swept Gutters at: Dupuy Ave between Bradsher Ave and Batter Pl, 524-516 Roslyn Ave, 111-121 Lakeside Dr Collected 4 cubic yards of debris.	Completed		AJ
7/18/2013	Curb and Gutter Cleaning	Internal-Employee	W018710-071813	Patsy Dixon	City Wide	Cleaned C&G at the following locations after crew cut grass: Ellerslie Ave from Dale Ave to Bent Oaks Ave, All traffic Islands on Dunlop Farms Blvd, Bluff Ct, Dr and Terrance, Islands Brookhill Ct, Shuford Av.	Completed		Linwood
12/6/2013	Curb and Gutter Cleaning	Internal-Employee	W020373-120613	Patsy Dixon	100 Deerwood Dr.	100 Block cleaned gutters with leaf machine collected 1/4 load of leaves and debris	Completed		
10/2/2013	Curb and Gutter Cleaning	Phone	W019699-100213	Patsy Dixon	301 Piedmont Ave.	Inmates cut up grass and sweeper swept the grass and trash up.	Completed		
10/17/2013	Curb and Gutter Cleaning	Phone	W019769-101713	Patsy Dixon	1314 Hermitage Rd	Used pitch fork and shovels to place brush on truck removed 1/2 dump truck of debris from site	Completed		
8/15/2013	Standing Water	Phone	W019114-081513	Patsy Dixon	909 Yorkshire Rd.	On 8/16/13 Cleaned grass, dirt of C&G and grinded down high area asphalt in gutter to allow water to drain On 8/19/13 checked area while it was raining	Completed		
7/17/2013	Curb and Gutter Cleaning	Phone	W018653-071713	Patsy Dixon	920 Yorkshire Rd.	Cleaned gutters and swept street	Completed		
5/21/2014	Curb and Gutter Cleaning	Phone	W022394-052114	Patsy Dixon	104 Norwood Drive	Cleaned gutters	Completed		

1507 - Clean Curb and Gutters

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
7/15/2013	Drainage (Misc.)	Walk-In	W018572-071513	Stephen Edwards	4756 Ridgecrest Lane	Used rakes to remove leaves from gutter to allow water to flow to Curb Inlet. The Curb and Gutter has dropped 2 to 3 inches on both sides of Inlet. Will turn over to concrete crew to repair or replace	Completed		
5/16/2014	Curb and Gutter Cleaning	Phone	W022292-051614	Patsy Dixon	4506 Courtland Dr.	Cleaned gutters with rakes and shovels removed 1/2 cubic yards of debris. Water went down	Completed		

1509 - Drainage Miscellaneous

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
1/14/2014	Drainage Ditch need cleaning	Phone	W020667-011414	Patsy Dixon	155 Watercress Ct.	Private BMP water is going down slowly lots of trash, overgrown with cat tails and small trees.	Completed		
8/30/2013	Drainage (Misc.)	Internal-Employee	W019328-083013	Patsy Dixon	3216 Glenview Ave.	Investigated area saw nothing wrong with ditch, no standing water. No on home to talk to	Completed		
8/2/2013	Standing Water	Internal-Employee	W018986-080213	Patsy Dixon	1218 Hermitage Rd.	Water is only about 2" spoke to resident he stated that he had his son cut grass and weeds down ground is very soft. I informed resident that I would get back to him after speaking to the Superintendent he stated that there was not much the City could do too much rain this Summer.	Completed		
8/2/2013	Street Flooding	Internal-Employee	W018998-080213	Patsy Dixon	1214 Boulevard	After hours Overtime High water Investigated area All drains checked out ok not stopped up took pictures too much rain fell in a short period of time drain pipes in this area are old and too small to take heavy rain.	Completed		
8/2/2013	Street Flooding	Phone	W018999-080213	Patsy Dixon	Battery Pl	After hours Overtime High water Investigated area 658 and 660 All drains checked out ok not stopped up took pictures too much rain fell in a short period of time drain pipes in this area are old and too small to take heavy rain.	Completed		
8/2/2013	Street Flooding	Phone	W019000-080213	Patsy Dixon	141 Windsor Ave.	After hours Overtime High water Investigated area 1 foot of water in backyard, He is very upset. "problem is coming from 143 Windsor Ave. Mr. Sadler property" All drains checked out ok not stopped up took pictures too much rain fell in a short period of time drain pipes in this area are old and too small to take heavy rain.	Completed		

1509 - Drainage Miscellaneous

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/2/2013	Street Flooding	Internal-Employee	W019001-080213	Patsy Dixon	Bruce Ave.	After hours Overtime High water Investigated area - 2 feet of water Informed Mike he said ok to close road used 2 road closed signs, barricade and stands, 2-high water sign and stands, 4-traffic cones All drains checked out ok not stopped up took pictures too much rain fell in a short period of time drain pipes in this area are old and too small to take heavy rain.	Completed		
8/12/2013	Drainage (Misc.)	Internal-Employee	W019078-081213	Patsy Dixon	City Wide	Rain checked storm drains at the following locations: Forest View Dr, Sherwood Dr, Canterbury, Chesterfield Ave, Pickwick Alley, Moose Ln, Fairfax Ave.	Completed		
7/18/2013	Street Flooding	Internal-Employee	W018714-071813	Patsy Dixon	Boulevard	Placed high water signs at the following locations: Cedar Lane at Boulevard - Southbound side 1 sign, Newcastle at Boulevard - Northbound side 1 sign. Heavy rain, Flash flood watch Monday and Tuesday	Completed		
7/18/2013	Debris Miscellaneous	Internal-Employee	W018718-071813	Patsy Dixon	Fischer @ E. Westover Aves	Drainage this is an on going issue re-shot grade for possible new basin and pipe to drian standing water	Completed		
7/24/2013	Drainage (Misc.)	Internal-Employee	W018810-072413	Patsy Dixon	Jennick Dr.	Placed a new top	Completed		
7/24/2013	Drainage (Misc.)	Internal-Employee	W018811-072413	Patsy Dixon	501 Lake Ave.	Called in MU to clean drainage ditches at: 3216 and 3220 Glenview Ave, 1113 W. Roslyn Rd.	Completed		
9/26/2013	Drainage (Misc.)	Internal-Employee	W019613-092613	Patsy Dixon	Fischer and Westover Aves	Shot grads at intersection to determine where new inlet will be placed.	Completed		
10/29/2013	Drainage (Misc.)	Phone	W019965-102913	Patsy Dixon	3201 Dale Ave.	At North Elementary Faculty Parking Lot - Located an 8" cast iron drain pipe for School maintenance Superintendent Kenny	Completed		
10/29/2013	Sinkhole	Internal-Employee	W019977-102913	Patsy Dixon	101 Kennon Ct.	Climbed down in Curb Inlet behind the above address a settle spot has formed over top storm sewer pipe NO seperation or infultation inside pipe, placed 2 cons in area. needs more dirt and to be tamped. Repairs where made to pipe July 15, 2013 SEE REF# W017704 for additional information.	Completed		
10/29/2013	Drainage (Misc.)	Internal-Employee	W019980-102913	Patsy Dixon	501 Lake Ave	Placed 2 new Spaghetti Booms in Drainage ditch at bak of PW Complex 1-10' and 1-20' booms to catch oil or other liquid Last done on May 30, 2013	Completed		

1509 - Drainage Miscellaneous

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
1/2/2014	Drainage (Misc.)	Internal-Employee	W020565-010214	Patsy Dixon	City Wide	Rain checked storm drains throughout the City	Completed		
4/30/2014	Drainage (Misc.)	Internal-Employee	W021970-043014	Patsy Dixon	Chesterfield Ave.	Used 2-5 gallon buckets of Grass seed around BMP	Completed		
5/1/2014	Drainage (Misc.)	Internal-Employee	W022059-050114	Patsy Dixon	City Wide	Precautionary for street flooding placed High Water Signs at the following locations: Boulevard @ Lakeview Ave Southbound, Boulevard at Essex Rd Northbound, Boulevard @ Pickwick Ave Northbound. Did not have to use.	Completed		
2/28/2014	Drainage (Misc.)	Internal-Employee	W021199-022814	Patsy Dixon	W. Westover @ Boulevard	Storm sewer pipe struck by contractor drilling for street lights old pipe not in use	Completed		
2/12/2014	Sinkhole	Internal-Employee	W020965-021214	Patsy Dixon	2010 Snead Ave.	On 2/12/14 Sink hole is beside of Curb Inlet very deep trails under road to manhole, placed a cone over area will investigate further tomorrow. On 7/23/14 used backhoe to dig up C&G and asphalt. Curb Inlet wall fell in when Gutter was taken out. Hollow cinder block very old. lots of problems with drainage in this area. Both Curb Inlets needs to be taken out. Dig out abondend metal and concrete pipes in area. Needs a new and larger junction box in street where manhole is. Area has water coming to this point from different directions leading to open spillway. Removed 8 tons of asphalt, concrete and dirt. Placed 1 ton Crush and run on both sides of inlet where C&G was taken out until work can be completed. Put up safety fence, caution tape, baracades and cones around work area. On 7/25/14 met with PW Assistance Director to discuss Stormwater Inlet. On 7/28/14 Met with Engingeering Project Coordinator to discuss inlet and junction box problem. Decision made to have a contractor make repairs, problem is about 10' in ground. City does not have the correct/safe equipment to perform repairs safety. Closed southbound lane of Snead at Ridge Rd, added 8 barrels, detour and road closed signs until Contractor can make repairs. On 7/29/14 Backfilled hole in front of inlet that was dug out by Stormwater Crew. Placed geotex fabric to form a flume to pervent errosion and re-installed safety fencing around area.	Completed		
2/12/2014	Drainage (Misc.)	Phone	W020966-021214	Patsy Dixon	249 Pecan Tree Terr	Resident wanted to have basin and pipe checked, he is putting in a new driveway. Pipe and basin is in good shape his driveway is cracked	Completed		

1509 - Drainage Miscellaneous

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
4/10/2014	Drainage (Misc.)	Internal-Employee	W021716-041014	Patsy Dixon	City Wide	Checked storm drains throughout the City during the rain	Completed		
3/13/2014	Drainage (Misc.)	Internal-Employee	W021354-031314	Patsy Dixon	City Wide	Checked storm drains and streets for debris rain all day at the following locations: Ellerslie Ave, Temple Ave, Boulevard, Chesterfield Ave.	Completed		
3/27/2014	Drainage (Misc.)	Internal-Employee	W021522-032714	Patsy Dixon	100 Block Chesterfield Ave.	Scaped edge of road with motorgrader where silt, dirt and gravel had built up not allowing water to drain property off street	Completed		
3/27/2014	Public Works Miscellaneous	Internal-Employee	W021525-032714	Patsy Dixon	201 James Ave.	Received list of outfalls to do reports and pictures from Engineering Division	Completed		
3/27/2014	Drainage (Misc.)	Internal-Employee	W021526-032714	Patsy Dixon	Old Town Creek	Walked creek from I-95 bridge to behind Home Depot off Conduit Rd found beavers cutting down trees in area recently	Completed		
12/16/2013	Drainage (Misc.)	Internal-Employee	W020429-121613	Patsy Dixon	City Wide	On 12/9/13 and 12/10/13 checked drainage areas rain all day	Completed		
12/17/2013	Sinkhole	Internal-Employee	W020468-121713	Patsy Dixon	112 Hanover Ave.	Investigated problem and found nothing wrong with stormwater basin or pipe, possible tree stump rotted out causing ground to settle, placed cone, will put topsoil in and keep a check on it.	Completed		
12/3/2013	Drainage (Misc.)	Internal-Employee	W020331-120313	Patsy Dixon	207 Spring Dr.	This is a private issue.	Completed		
8/16/2013	Curb and Gutter Cleaning	Phone	W019121-081613	Patsy Dixon	Conduit Rd. @ Yacht Basin Dr.	Checked area everything clean	Completed		
6/12/2014	Street Flooding	Phone	W022760-061214	Patsy Dixon	Newcastle Dr.	Investigated area the creek is flooded cannot do anything will have to go down on its own	Completed		
6/12/2014	Street Flooding	Phone	W022755-061214	Patsy Dixon	Boulevard	Blocked north and south bound lanes until water receded	Completed		
4/7/2014	Storm Drain Clogged	Phone	W021674-040714	Patsy Dixon	411 Lilliston Ave.	Met with resident at 527 Roslyn Ave and inspected inlet pipe from ditch it is clear. Problem at 411 Lilliston is due to just the lay out of the land (low areas) and fences inhibiting water flow.	Completed		AJ

1509 - Drainage Miscellaneous

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/4/2014	Driveway Clearance	Phone	W022676-060414	Patsy Dixon	322 Yorktown Dr.	Meet with Ms. Jones informed her she will need a 15' long x 4" diameter pipe. She is not sure what she wants to do need will let us know at a later date if she decides to install the pipe	Completed		
6/12/2014	Street Flooding	Phone	W022746-061214	Patsy Dixon	1214 Boulevard	Checked area all drains are clear too much rain in a shor period of time	Completed		
5/29/2014	Drainage (Misc.)	Phone	W022530-052914	Patsy Dixon	113 Hargrave Ave	City did not put in landscape timbers originally resident said he did NOT a City Issue	Completed		
6/12/2014	Storm Drain Clogged	Phone	W022753-061214	Patsy Dixon	135 Pickwick Ave.	Too much rain fell in a short period of time, pipe in alley is clear and taken as much water as it can. water is going down	Completed		
6/12/2014	Street Flooding	Phone	W022750-061214	Patsy Dixon	312 Wright Ave.	Too much rain fell in a short period of time dirt came from baseball field water is going down	Completed		
12/23/2013	Street Flooding	Phone	W020493-122313	Patsy Dixon	Covington Rd.	Moved leaves out of street so water can flow	Completed		
6/12/2014	Street Flooding	Phone	W022757-061214	Patsy Dixon	Boulevard	Lots of water, raining really hard, storm drains cannot take all the water that is coming down right now. Placed high water signs. Rain let up is going down now.	Completed		
5/1/2014	Drainage Ditch need cleaning	Web	W022068-050114		307 ridge road	This is Not an easement, it is the property owners responsible to keep clean, we have no access to this area informed Superintendent. See REF # W009800 for Additional Information	Completed		
8/16/2013	Storm Drain Repairs	Walk-In	W019123-081613	Alan Thornton	405 MACARTHUR AVE	Scott Thornton performed site visit on 8/16/13 recommends drainage pipe and structure be examined via camera to determine if pipe or structure needs repair. Also, recommend pesticide application to address insect issue. On 10/23/13 Climbed in manhole found no debris or standing water in a 48" plastic pipe, found no infultration, area above ground over top of pipe has always been low the way the land lays. Water will seek its lowest point and stand in grass. If City fills this area in it will cause a bigger problem	Completed		
2/6/2014	Drainage (Misc.)	Phone	W020916-020614	Patsy Dixon	Dale & Beechwood Aves	Placed concrete lid back on basin NO damage done to basin or lid	Initiated		
6/23/2014	Standing Water	Phone	W022880-062314	Patsy Dixon	Conduit Rd @ Bristol Ave	Spoke to resident, looked at problem area, no standing water found, C&G in bad shape, water cannot flow to curb inlet on Conduit Rd from Bristol Ave. Storm drain checked out ok, just green stain on concrete in gutter from sump pump pipe, no odor found.	Completed		

1509 - Drainage Miscellaneous

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
11/17/2013	Curb and Gutter Repair/Replacement	Web	W020169-111713		146 Charlotte Ave.	Removed broken off angle iron from Curb Inlet a large truck or School Bus drove on top of basin.	Completed		
8/6/2013	Storm Drain Clogged	Phone	W019043-080613	Patsy Dixon	449 Southpark Cr.	Investigated area this is private notified manager-Jackie and informed her.	Completed		
4/21/2014	Storm Drain Clogged	Phone	W021857-042114	Patsy Dixon	449 Southpark Cr.	Private Property - Scott Thornton checked records and map, spoke to manager he understood.	Completed		
6/12/2014	Street Flooding	Phone	W022754-061214	Patsy Dixon	311 Brookedge Dr.	Checked area all drains are clear too much rain in a short period of time.	Completed		
1/31/2014	Drainage (Misc.)	Walk-In	W020863-013114	Alan Thornton	2005 Wakefield Ave	resident causing problem by running vehicles across front yard. There is no C&G on this street. Resident has a driveway that has gravel in it.	Completed		
2/21/2014	Drainage Ditch need cleaning	Walk-In	W021080-022114	Alan Thornton	319 Mooreman Ave	Investigated area found no ditch along road or property. Vehicles parking in grass tearing up ground creating standing water in back yard.	Completed		
6/12/2014	Street Flooding	Phone	W022758-061214	Patsy Dixon	120 Charlotte Ave.	Lots of water, raining really hard, storm drains cannot take all the water that is coming down right now. Rain let up is going down now	Completed		
4/15/2014	Standing Water	Phone	W021804-041514	Patsy Dixon	1215 Hermitage Rd.	No standing water C&G in good condition not sure what resident is seeing.	Completed		
5/5/2014	Drainage Ditch need cleaning	Phone	W022105-050514	Patsy Dixon	3608 Hemlock Ave.	Talked to Scott Thornton in Engineering he looked up workorder and pulled area map, he said to hold off doing anything until he takes a closer look. He will talk to Mike and Chuck about the drainage issue in this area.	Completed		
5/6/2014	Drainage Ditch need cleaning	Phone	W022144-050614	Patsy Dixon	307 Wright Ave.	After looking at other work orders I spoke to Scott Thornton about this and he informed me that we do have the drainage ditch going North and South not the one going East and West. He will call Mr. Schwartz back. See Ref # W013345, W014680 and W014407 for additional information	Completed		
6/23/2014	Drainage Ditch need cleaning	Email	W022883-062314	Patsy Dixon	307 Wright Ave.	See the attachment tab for additional information and action taken	Completed		
6/12/2014	Street Flooding	Phone	W022756-061214	Patsy Dixon	Taswell Ave	Lots of water, raining really hard, storm drains cannot take all the water that is coming down right now. Rain let up is going down now	Completed		

1509 - Drainage Miscellaneous

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/20/2014	Sinkhole	Phone	W022864-062014	Patsy Dixon	307 Kent Ave.	Sanitary sewer problem, Called Utilities Division checked problem. There is no Cleanout informed resident of problem	Completed		
6/24/2014	Drainage (Misc.)	Walk-In	W022922-062414	Stacey Peterson	138-140 Pickwick Ave.	On 7/8/14 met with Mr Mcgee to discuss drainage problem in front of building and owner of Dominion Communications to discuss drainage problem behind building. on 7/9/14 graded area beside building at Dominion Communications in alley to improve drainage. Also, see REF # W023443 for additional information	Completed		

1510 - Drainage Structure Inventory

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/2/2014	Drainage Structure Inventory	Internal-Employee	W022587-060214	Patsy Dixon	Fairfax Ave.	Placed 2 outfalls on yearly report	Completed		
6/2/2014	Drainage Structure Inventory	Internal-Employee	W022588-060214	Patsy Dixon	Meridian Ave.	Placed 1 outfall on yearly report	Completed		
6/2/2014	Drainage Structure Inventory	Internal-Employee	W022589-060214	Patsy Dixon	Conduit Rd	At Main Pump Station Placed 1 outfall on yearly report	Completed		
6/2/2014	Drainage Structure Inventory	Internal-Employee	W022590-060214	Patsy Dixon	Boulevard @ Old Town Creek	Placed 1 outfall on yearly report	Completed		
6/26/2014	Drainage Structure Inventory	Internal-Employee	W022952-062614	Patsy Dixon	City Wide	Placed the following on BMP's Yearly report: 201 James Ave, Behind 1209 Covington Rd, Lee Place @ Danville Ave, Archer Ave at Bridge, 100 Highland Ave, 500 Conduit Rd, 401 Taswell Ave, 5501 Conduit Rd, 155 Watercress Ct, 550 Boulevard Courthouse.	Completed		
6/26/2014	Drainage Structure Inventory	Internal-Employee	W022956-062614	Patsy Dixon	City Wide	Placed the following Outfalls on Yearly report: Forest View Dr, Duke of Gloucester St (2), Whitehall Dr, Breezy Hill Dr, Charles Dimmock Pkwy, Windmere Dr Dead end, Huntington Dr. Total 9	Completed		
6/26/2014	Drainage Structure Inventory	Internal-Employee	W022957-062614	Patsy Dixon	Choptank Ct.	Placed Outfall on Yearly report	Completed		

1510 - Drainage Structure Inventory

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022959-062614	Patsy Dixon	City Wide	Placed the following outfalls on Yearly Report: Forest View Dr, Bluffs Ct (2), Deerwood Dr, Lexington Dr, Snead Ave (2). Total 7.	Completed		
6/26/2014	Clean Catch Basin, BMPs, Inlets, Outfalls, Drainage Ditches etc.	Internal-Employee	W022961-062614	Patsy Dixon	City Wide	Placed the following Outfalls on Yearly Report: Breezy Hill Dr, Dunlop Farms Blvd. Placed boat in at White Bank Landing. Finished yearly outfall reports.	Completed		
6/26/2014	Drainage Structure Inventory	Internal-Employee	W022970-062614	Patsy Dixon	City Wide	Placed the following Outfalls on Yearly Report: Ridge Rd, Shade Tree Ct, Bear Chase Ct, Longhong Dr, Hemlock Ave at the dead end. Total 5	Completed		
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022401-052214	Patsy Dixon	City Wide	Old Town Dr - 5 outfalls. 1 each at the following: Nantucket Ct, Kennon Pt, Temple Ave, Yacht Basin Dr, Newcastle Dr, Springdale Ave, Cedar Ln, Boulevard, Ellerslie Ave. Total 14	Completed		
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022402-052214	Patsy Dixon	City Wide	Taylor Ln - 2 outfalls, 1 each at the following: Comstock Dr, Bradsher Ave. 3-outfalls at Chesterfield Ave. Total 7	Completed		
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022403-052214	Patsy Dixon	City Wide	1- each at the following locations: Ayshire Rd, Cambridge Pl, Wildwood Ave, Driftwood Ave, Covington Rd. Total 5	Completed		
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022404-052214	Patsy Dixon	Pertshire Ln	1-outfall	Completed		
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022405-052214	Patsy Dixon	Concord Ave.	3-outfalls	Completed		
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022410-052214	Patsy Dixon	City Wide	Orchard Ave, Fairmount Dr @ Winston Ave, Dead end of Nottingham Dr, Camelot Ct, Seaton Dr, Tudor Rd. Total 6 outfalls.	Completed		
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022414-052214	Patsy Dixon	Clifton Dr.	1-Outfall placed on yearly report	Completed		

1510 - Drainage Structure Inventory

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022415-052214	Patsy Dixon	Waterfront Dr.	Placed 3-outfalls on yearly report - put boat in at White Bank Park.	Completed		
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022418-052214	Patsy Dixon	City Wide	1 each outfall at: Hourda Pump Station, Yew Ave, East Ave, Hargrove Ave and 2-outfalls Brookedge Dr. Total 6	Completed		
5/22/2014	Drainage Structure Inventory	Internal-Employee	W022419-052214	Patsy Dixon	Whipporwill Ct.	Placed 1 outfall on Yearly report	Completed		
5/28/2014	Drainage Structure Inventory	Internal-Employee	W022505-052814	Patsy Dixon	Forestview Dr.	2 outfalls on Swift Creek put john boat in at Ashby Ave City Property placed outfalls on yearly report	Completed		
5/28/2014	Drainage Structure Inventory	Internal-Employee	W022506-052814	Patsy Dixon	Sherwood Dr.	3 outfalls on Swift Creek put john boat in at Ashby Ave City Property placed outfalls on yearly report	Completed		
5/28/2014	Drainage Structure Inventory	Internal-Employee	W022507-052814	Patsy Dixon	Sherwood Dr @ Springdale Ave.	A outfall on Swift Creek put john boat in at Ashby Ave City Property placed outfalls on yearly report	Completed		
5/28/2014	Drainage Structure Inventory	Internal-Employee	W022508-052814	Patsy Dixon	Springdale Ave.	A outfall on Swift Creek put john boat in at Ashby Ave City Property placed outfalls on yearly report	Completed		
7/8/2013	Drainage Structure Inventory	Phone	W018499-070813	Alan Thornton	Greenwood Ave	Mapped Outfalls - GPS Machine	Completed		

1511 - Drainage Structure Inv Misc.

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/2/2014	Drainage Structure Inventory Miscellaneous	Internal-Employee	W022591-060214	Patsy Dixon	Hillcrest Ave.	Made clearing for John Boat to put in water for outfall reports used backhoe to move to big logs from pathway to Swift Creek	Completed		

1511 - Drainage Structure Inv Misc.

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/2/2014	Drainage Structure Inventory Miscellaneous	Internal-Employee	W022592-060214	Patsy Dixon	Hillcrest Ave.	Placed john boat in water at Pump Station attempted to reach outfalls at Hemlock Ave and Longhorn Dr could not reach water too shallow and many trees down used gas and electric motor.	Completed		

1514 - Repair Storm Sewer Pipe

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
4/30/2014	Storm Drain Repairs	Internal-Employee	W021973-043014	Patsy Dixon	407 Nottingham Dr.	Called in an Emergency MU Ticket, dug out 2 loads of asphalt, dirt and gravel uncover a broken 4' section of 18" concrete pipe. Placed a 6' of 18" double walled black plastic pipe back in place, used 2-94lb bags of cement to mend both ends of pipe together, placed 4 tons #5 stone on top and around pipe, and 6 tons crush and run on top of stone and tamped area.	Completed		
3/27/2014	Sinkhole	Internal-Employee	W021528-032714	Patsy Dixon	2547 White Oak Ct.	on 3/26/14 Climbed into basin found dirt coming threw lift hole, 15" concrete pipe an 8' section, curb and gutter dropped 3" near inlet. Will call MU to mark utilities so repairs can be made. On 3/29/14 Placed 1 ton #3 stone in hole and cones back on top until repairs can be made, hole is beside of mailbox. On 4/21/14 Used backhoe and dumptruck to dig down to top of pipe, removed 1 load of dirt, gravel and C&G, found the lift hole on the pipe had nothing in it causing hole, placed 1/2 of a bucket to plug cement in lift hole, had to take out an 8' of C&G that broke due to the sinkhole, patched inside walls of curb inlet with 1/2 bucket of plug cement, used 3 tons of crush and run stone on top of pipe, 1 ton of topsoil and seeded area.	Completed		

1514 - Repair Storm Sewer Pipe

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
4/24/2014	Storm Drain Clogged	Web	W021922-042414		3261 Longhorn Drive	On 4/25/14 Investigated problem, found seperated 15" concrete pipe behind curb causing problem, hole has #5 stone in it could see stone under pipe where it is seperated. Will have to dig down to pipe at a later date. Placed a cone over hole where pipe is broken. On 7/10/14 Removed old C&G, asphalt in front of Curb Inlet Basin to keep sinkhole from coming back, removed 6 tons of concrete, asphalt and dirt, Used 6 tons of Crush and run to place in hole from utilities division with assist from Rickey Corn and their backhoe to backfill hole. On 7/11/14 Used mini excavator to dig behind C&G to repair a 15" concrete pipe. Found 3" PVC pipe connected to down spout had seperated and was put together wrong also causing problem. Installed new 10' section of 3" pipe to correct problem. Used 1 bag cement to repair 15" pipe. Placed 2 tons of #5 stone in hole, placed 1 ton of dirt on top of stone and raked.	Completed		
6/4/2014	Sinkhole	Phone	W022679-060414	Patsy Dixon	209 Crescent Ave.	On 6/5/14 Investigated problem found manhole in driveway covered over with stone, placed cones on area until repairs can be made. On 7/1/14 used backhole to dig down to seperated pipe, removed 8 tons of debris, gravel and dirt. Mied 1/2 5 gallon bucke to plug cement to patch seperated area in pipe, placed 4 tons of crush and run stone around, on top of pipe and tamped, placed 4 tons of #5 sone on top fo crush and run and tamped. back dragged #5 stone in driveway.	Completed		
7/8/2013	Sinkhole	Phone	W018502-070813	Patsy Dixon	624 RYAN AVE	Climbed down in box and crawled threw pipe was seperated used hydraulic cement to patch void used 2-5 gallon buckets of dirt to fill hole.	Completed		
5/8/2014	Sinkhole	Phone	W022162-050814	Patsy Dixon	208 Honeycreek Court	On 5/9/14 climbed down in basin to the 48" concrete pipe, found dirt coing through lift hole causing problem. placed 1/4 of a 5 bucket of plug cement in lift hole to seal pipe. Placed cones over settle spot for the weekend, calling for rain on the weekend. Will put topsoil and seed on area Monday. On 5/12/14 placed 1/2 ton of topsoil and 1/4 of 5 bucket of gass seed	Completed		

1514 - Repair Storm Sewer Pipe

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
1/23/2014	Sinkhole	Internal-Employee	W020772-012314	Mike West	Conduit Rd & Riveroaks Dr.	On 1/24/14 Used loader to haul 1 ton of #3 stone to fill hole temporarily until it can be fixed, James and Linwood assisted. On 9/10/14 Used backhoe to dig down to a 24" concrete pipe where tree roots from a pine tree were growing threw joint causing seperation. Removed 3- dump truck loads of dirt, sand and tree roots, used 1-5 gal bucket of plug cemetn to repair pipe, Used 2-dump truck loads #5 stone to fill in around pipe, Used 2-dump truck loads crush and run stone to fill hole, packed stone down and placed cones around area for the night. On 9/11/14 Placed 3 tons of topsoil on top of Crush and run stone, used loder to smooth, grass seeded and strawed area.	Completed		AJ
4/15/2014	Sinkhole	Internal-Employee	W021772-041514	Patsy Dixon	135 Charlotte Ave.	On 4/15/14 placed 2 barrels over holes until repairs can be made. On 4/23/14 Used shovel to dig beside catch basin found that the concrete had fall under the grate top ring, causing dirt to wash out causing hole. Pulled manhole lid beside catch basin threw ribbed metal galvanized 36" pipe. Pipe is in good shape, pipe had been slip lined No infortration threw pipe. 36" pipe running threw catch basin is also in good shape and had been slipped line and it is ribbed metal galvanized. Used a 94lb bag of cement to repair hole in Catch basin and around basin. Took existing dirt to fill in around catch basin.	Completed		
9/9/2013	Sinkhole	Web	W019411-090913		311 Brookedge Drive	On 10/4/13 sink hole is around manhole in front yard, placed 3 wheel barrel loads of crush and run stone in hole temporary Utilities tried to TV storm sewer pipe too much water and sand in pipe water runs threw 24" pipe spoke to Mike about problem. On 10/17/13 Used mini excavator to dig beside manhole down to the 24" metal pipe, found bottom of pipe is rusted, stopped digging so the pipe would not collapse, hauled 6 tons of dirt away, used black fabric to cover rusted portion of pipe, used 3 tons of #3 stone, placed beside of pipe and on top very carefully, placed remaining dirt on top of stone and 1 ton of topsoil on top of fill dirt. Could become a big problem in the future water runs continuously threw this pipe.	Completed		

1514 - Repair Storm Sewer Pipe

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
8/2/2013	Sinkhole	Phone	W018985-080213	Patsy Dixon	513 Old Town Dr.	On 8/2/13 Investigated area found a 12" metal pipe from Curb Inlet ties into sanitary sewer at manhole in middle of street *will replace pipe at a later date. On 8/30/13 placed 1 bag of cold patch asphalt in hole and tamped. Will replaced pipe from Curb Inlet to manhole approx. 15' will use plastic, metal pipe rusted holes on top causing sinkhole placed barrel on hole until job can be completed. On 1/13/14 Dug out asphalt, dirt, old metal pipe, removed 3 dump truck loads 12 tons of debris, set new 16' of 12" PVC pipe from curb inlet to manhole in the middle of the street, used 6 tons of Crush and run stone back in hole around and on top of pipe, Coned area off used plywood to cover ends of pipe. On 1/14/14 Used pupe sas to cut gutter to put pipe into Curb inlet, formed up inlet box around pipe, picked up bricks to fill in around pipe at manhole, used 2-94lbs bags of concete, stone and sand, poured concrete and mouth to the back of the curb inlet and covered for the night. On 1/15/14 Used 1 bag of concete and sand, bricked up pipe at manhole, In cased pipe and bricks with remaining cement, covered for the night. On 1/16/14 stripped forms from Curb Inlet box, backfilled with 4 tons of crush and run stone and packed. * Needs to be patched large area in street.	Completed		
8/5/2013	Sinkhole	Phone	W019015-080513	Patsy Dixon	3607 Perthshire Ln.	Patched hole in box wall with hydraulic cement, filled hole in front of box in street with crush and run and packed stone.	Completed		
6/27/2014	Sinkhole	Phone	W022977-062714	Patsy Dixon	320A Charles Dimmock Pkwy	Used mini excavator and Utilities Backhoe to dig out gutter and asphalt from in front of Curb inlet. Asphalt about 12" thick. Found rotten wood still attached to wall of basin removed wood. Found lift hole not plugged that was causing road and gutter to break and cause sinkhole. Used 1/4 bucket of plug cement to fill lift hole. Pipe is a 54" concrete that collects all water in the area. removed 4 tons of asphalt, concrete and dirt. Placed 2 tons #5 stone on top and around pipe. Then placed 2 tons Crush and run stone on top of #5 stone and tamped	Completed		

1600 - Sweeper Clean Street

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/28/2014	Street Sweeping	Phone	W021530-032814	Patsy Dixon	909 Park Ave.	Swept street	Completed		Linwood
8/23/2013	Street Sweeping	Phone	W019211-082313	Patsy Dixon	900 East Ellerslie Ave.	Removed 1 cubic yards of sand and gravel	Completed		

1600 - Sweeper Clean Street

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
5/22/2014	Street Sweeping	Phone	W022400-052214	Patsy Dixon	900 East Ellerslie Ave.	Sweep the area above collected 2 cubic yards of debris	Completed		Linwood
8/30/2013	Street Sweeping	Internal-Employee	W019324-083013	Patsy Dixon	501 Lake Ave	Cut grass and removed 4 cubic yards of debris from PW Complex Parking lot	Completed		
8/30/2013	Street Sweeping	Internal-Employee	W019327-083013	Patsy Dixon	Boulevard	Removed 8 cubic yards of silt, trash, rocks, dirt and grass from Lakeview Ave south to Piedmont Ave.	Completed		
8/30/2013	Street Sweeping	Internal-Employee	W019329-083013	Patsy Dixon	Lakeside Dr.	Swept from 121 to 111 Lakeside Dr removed 1 cubic yard of debris	Completed		
8/2/2013	Street Sweeping	Internal-Employee	W018988-080213	Patsy Dixon	Lakeside Dr.	Removed 3.5 cubic yards of debris from 111 to 122 Lakeside Dr, grass clipping, silt, dirt, pineneedles and pine cones.	Completed		
7/17/2013	Street Sweeping	Internal-Employee	W018651-071713	Patsy Dixon	Dupuy Ave.	Swept street - Collected 8 cubic yards of debris	Completed		Linwood
7/17/2013	Street Sweeping	Internal-Employee	W018652-071713	Patsy Dixon	Temple Ave.	Swept Street - collected 8 cubic yards of debris	Completed		
7/18/2013	Street Sweeping	Internal-Employee	W018712-071813	Patsy Dixon	100 Carroll Ave.	Swept the 100 Block collected 4 cubic yards of debris	Completed		
9/4/2013	Vegetation Control (Public Property)	Internal-Employee	W019366-090413	Patsy Dixon	Ellerslie Ave.	Blew grass off sidewalk and sweeper swept up grass from Atlantic Ave to Conduit Rd.	Completed		
9/13/2013	Street Sweeping	Internal-Employee	W019440-091313	Patsy Dixon	Ellerslie Ave.	Swept street collected 4 cubic yards of debris	Completed		Linwood
9/13/2013	Street Sweeping	Internal-Employee	W019441-091313	Patsy Dixon	Dunlop Farms Blvd.	Swept street collected 4 cubic yards of debris	Completed		Linwood
9/20/2013	Street Sweeping	Phone	W019517-092013	Patsy Dixon	Boulevard	Swept street from Swift Creek south to Newcastle Dr, and from E. Westover Ave north to Temple Ave collected 16 cubic yards of debris: silt, grass, gravel, dirt and trash.	Completed		

1600 - Sweeper Clean Street

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
9/20/2013	Street Sweeping	Internal-Employee	W019531-092013	Patsy Dixon	Rolsyn Rd.	Swept street collected 4 cubic yards of debris	Completed		
9/20/2013	Street Sweeping	Internal-Employee	W019532-092013	Patsy Dixon	Riverview Rd.	Swept street collected 4 cubic yards of debris	Completed		Linwood
10/24/2013	Street Sweeping	Internal-Employee	W019898-102413	Patsy Dixon	550 Boulevard	Swept around New Courthouse	Completed		Linwood
5/12/2014	Street Sweeping	Phone	W022178-051214	Patsy Dixon	Hamilton Ave.	Swept street collected 12 cubic yards of debris	Completed		Linwood
5/12/2014	Street Sweeping	Internal-Employee	W022179-051214	Patsy Dixon	City Wide	Collected 8 cubic yards of debris from: Danville Ave, Lafayette Ave	Completed		
5/12/2014	Street Sweeping	Internal-Employee	W022180-051214	Patsy Dixon	City Wide	Collected 40 cubic yards of debris from: Danville, Dick Ewell, Jett, Kensington, Lee, Lee Pl, Lynchburg, Norfolk, Pickwick, Richmond, Fischer, Hill Pl, Shuford, Suffolk, Tussing Ln.	Completed		Linwood
5/12/2014	Street Sweeping	Internal-Employee	W022181-051214	Patsy Dixon	City Wide	Collected 16 cubic yards of debris from: Lyons, Moorman, Oaks, Helen, Highland, Walnut	Completed		Linwood
6/17/2014	Street Sweeping	Internal-Employee	W022803-061714	Patsy Dixon	Ellerslie Ave.	Collected 1 cubic yards of debris swept bridges	Completed		Linwood
6/17/2014	Street Sweeping	Internal-Employee	W022804-061714	Patsy Dixon	Boulevard	Collected 3 cubic yards of debris swept from Ellerslie Ave to Chesterfield Line and from Chesterfield line to Ellerslie Ave.	Completed		Linwood
6/5/2014	Street Sweeping	Internal-Employee	W022684-060514	Patsy Dixon	City Wide	Collected 24 cubic yards of debris from: Bluffs Ct, Bluffs Ter, Bluffs Dr, Brooke Ct, Camden Rd, Comstock Dr, Conjurers Dr, Kingfisher Wy, Moose Ln, Nantucket Ct, Old Brickhouse Ln, Red Fox Rd, Salem Ct, Dunston Point Pkwy, Germar Ct, Huntington Rd, Watercress Ct, Waterfront Dr, White Bank Rd, White Sand Ct.	Completed		Linwood

1600 - Sweeper Clean Street

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
6/5/2014	Street Sweeping	Internal-Employee	W022685-060514	Patsy Dixon	City Wide	Collected 24 cubic yards of debris from: Avon Ct, Ayshire Rd, Berkshire Ln, Brandywine Ct, Briarcliffe Ct, Briarcliffe Dr, Courtland Dr, Cumberland Dr Orkney Rd, Perthshire Ln, Pinecliffe Dr, Princeton Rd, Dunoon Ct, Dunoon Rd, Eastwind Ct, Edinborough Dr, Hawick Dr, Hope Ridge Ct, Salisbury Rd, Taylor Ln, Welesley Ln, Whitestone Ct, Whitestone Pl, Wicker Dr, Windmere Dr, Woodcliffe Dr, Wikshire Ct.	Completed		Linwood
6/9/2014	Street Sweeping	Internal-Employee	W022711-060914	Patsy Dixon	City Wide	Collected 16 cubic yards of debris from: Angus Ln, Azalea Ln, Dogwood Dr, Jersey Ct, Longhorn Dr, Old Town Creek Wy, Pecan Tree Ter, Greenmeadow Ct, Greenmeadow Dr, Holly, Honeycreek Ct, Shade Tree Ct, Shade Tree Dr, W. Roslyn Rd, E Westover Av. Bridge over Swift Creek on Boulevard at Chesterfield Line.	Completed		Linwood
6/2/2014	Street Sweeping	Internal-Employee	W022583-060214	Patsy Dixon	City Wide	Collected 32 cubic yards of debris from: Breezy Hill Dr, Brockwell Ln, Cedar Ridge Ct, Choptank Ct, Clifton, Conjurors Dr, Creek Point Ct, Dana Ln, Deerwood Dr, Kennon Ct, Kennon Point Ct, Kennon Point Dr, Lakewater Ct, Lexington Dr, Mallard Dr, Moose Ln, Old Brickhouse Ln, Pinecliffe Dr, Ridgecrest Ln, Riveroaks Dr, Gills Dr, Indian Rock Ct, Waterfront Dr, Whippowill Ct, Whitehall Dr, Woodbridge Rd.	Completed		Linwood
5/6/2014	Street Sweeping	Internal-Employee	W022128-050614	Patsy Dixon	Boulevard	Removed 16 cubic yards of asphalt and other debris for Contractor (Shosmith)	Completed		Linwood
5/6/2014	Street Sweeping	Internal-Employee	W022142-050614	Patsy Dixon	Boulevard	Swept rocks and asphalt in turning lane from W. Westover Ave to Dupuy Ave for Shosmith the City's Contractor	Completed		
5/15/2014	Street Sweeping	Phone	W022261-051514	Patsy Dixon	City Wide	Collected 20 cubic yards of debris from: Brookedge Dr, Crestwood Dr, Keith Dr, Layrel Pkwy, MacArthur, Newcastle Dr, Prince Albert, Ridge Rd, E. Highland Ct, Elko, Ellis Ln, Essex Rd, Farris, Hampton Dr, W. Highland Ct, Snead, Spring Dr, N. Temple, N Valley Rd, S Valley Rd.	Completed		Linwood
5/15/2014	Street Sweeping	Internal-Employee	W022262-051514	Patsy Dixon	City Wide	Collected 32 cubic yards of debris from: Adams, Ashley Pl, Beechwood, Bermuda, Birch, Boykins, Brookhill, Brookhill Ct, Dale, Meadow View Rd, Meridian, Orange, East, Eastmen, Forest View Dr, George, Hargrave, Hemlock, Hillcrest, Sherwood Dr, Spruce, West, Yew.	Completed		Linwood
5/16/2014	Street Sweeping	Internal-Employee	W022316-051614	Patsy Dixon	City Wide	Collected 32 cubic yards of debris from: Brian Ln, Buckingham Dr, Camelot Ct, Lakewood Dr, Norwood Dr, Nottingham Dr, Robinwood Ct, Friar Ln, Seaton Dr, Tudor Rd, Winston.	Completed		Linwood

1600 - Sweeper Clean Street

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
5/22/2014	Street Sweeping	Internal-Employee	W022433-052214	Patsy Dixon	City Wide	Collected 32 cubic yards of debris from: Brijadan Ln, Cedar Creek Ln, Cloverhill, Compton Rd, Dover Ln, Keswick Rd, Laurens Ln, Lundy, Old Town Dr, Sadler, Ewing, Fairlie Rd, Greenleaf Ln, Taswell, Vance, Verbov.	Completed		Linwood
5/22/2014	Street Sweeping	Internal-Employee	W022434-052214	Patsy Dixon	City Wide	Collected 40 cubic yards of debris: Biltmore Dr, Brookhill, Cabell Dr, Caswell, Davis, Lake, Lakeside Dr, Lakeview Park Rd, Lenoir, Pickett, Pondola Ln, Fairmount Dr, Flintlock Dr, Forest View Dr, Glenview, Homestead Dr, Springdale, Swift Creek Ln, Woodlawn.	Completed		Linwood
5/22/2014	Street Sweeping	Internal-Employee	W022435-052214	Patsy Dixon	City Wide	Collected 32 cubic yards of debris: Atlantic, Bent Oaks Dr, Cedarwood, Charles, Mount Pleasant Dr, Oaks, Oakwood Dr, Pin Oak Ct, Elmwood Dr, Frederick, Greenwood, Holly, Driftwood, White Oak Ct, Wildwood, Woodside, Yacht Basin Dr.	Completed		Linwood
5/28/2014	Street Sweeping	Phone	W022460-052814	Patsy Dixon	City Wide	Collected 32 cubic yards of debris from: Appomattox Ct, Appomattox Dr, Burlington Dr, Canterbury Ln, Cedarwood, Covington Rd, Duke of Gloucester St, Wellington Rd	Completed		Linwood
5/28/2014	Street Sweeping	Phone	W022511-052814	Patsy Dixon	City Wide	Collected 14 cubic yards of the debris from Dunlop Farms Blvd, Greenleaf Ln, Hermitage Rd..	Completed		Linwood
4/30/2014	Street Sweeping	Internal-Employee	W021991-043014	Patsy Dixon	City Wide	Collected 24 cubic yards of debris from: Archer, Arlington, Jefferson, Riverside Rd, Riverview Rd, Roslyn, Royal Oak, Virginia, Washington, Wilson, Jackson.	Completed		Linwood
4/30/2014	Street Sweeping	Internal-Employee	W021992-043014	Patsy Dixon	City Wide	Collected 32 cubic yards of debris from: Beech, Bristol, Cameron, Chestnut, Lilliston, Maple Grove, Pinehurst, Royal Oak, Floral, Ingram, Ivey, Jamestown Rd, Williamsburg Rd, Yorkshire Rd.	Completed		Linwood
4/15/2014	Street Sweeping	Internal-Employee	W021770-041514	Patsy Dixon	City Wide	Collected 16 cubic yards of debris from: Charlotte Ave, Drake Ave, Piedmont Ave, Poplar St, Roanoke Ave, W. Westover Ave.	Completed		Linwood
4/15/2014	Street Sweeping	Internal-Employee	W021771-041514	Patsy Dixon	City Wide	Collected 24 cubic yards of debris: A Ave, B Ave, Brame Ave, C Ave, Cedar Ln, Concord Ave, D Ave, Kent Ave, Maple Ave, E Ave, F Ave, Franklin Ave, Wakefield Ave, Yorktown Dr.	Completed		Linwood
4/23/2014	Street Sweeping	Internal-Employee	W021877-042314	Patsy Dixon	City Wide	Sweeper collected 32 cubic yards of debris from: Bradsher, Bruce, Cambridge Pl, Carroll, Chesterfield, Crescent, Mavin, Orchard, Gould, Hanover, Hillside Ln, Sancho Alleyh.	Completed		Linwood
4/23/2014	Street Sweeping	Internal-Employee	W021878-042314	Patsy Dixon	City Wide	Sweeper collected 24 cubic yards of debris from: Battery Pl, Braxton, Maple Ln, 1/2 of Meridian, Plumtree, Roanoke, Windsor, Wright.	Completed		Linwood

1600 - Sweeper Clean Street

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
2/28/2014	Street Sweeping	Internal-Employee	W021172-022814	Patsy Dixon	Conduit Rd. @ Mallard Dr.	Swept up dirt, loose gravel and sand from a Utility cut in the area for Utilities Division	Completed		
4/2/2014	Street Sweeping	Internal-Employee	W021585-040214	Patsy Dixon	City Wide	Collected 16 cubic yards of debris from: Center Ave, Park Ave, Elko Ave, Hardy Ave.	Completed		Linwood
4/2/2014	Street Sweeping	Internal-Employee	W021586-040214	Patsy Dixon	Temple Ave.	Collected 16 cubic yards of debris from street	Completed		Linwood
4/2/2014	Street Sweeping	Internal-Employee	W021587-040214	Patsy Dixon	Southpark Mall	Collected 16 cubic yards of debris from: South Ave, Southpark Blvd, Southpark Ctr. E. Roslyn Rd	Completed		Linwood
4/7/2014	Street Sweeping	Internal-Employee	W021636-040714	Patsy Dixon	City Wide	Collected 24 cubic yards of debris from: Charles Dimmock Parkway, Conduit Rd, Jennick Dr, Southpark Blvd, Temple Lake Dr.	Completed		Linwood
4/7/2014	Street Sweeping	Internal-Employee	W021637-040714	Patsy Dixon	City Wide	Collected 32 cubic yards of debris from: Colonial, Conduit Rd, E. Westover Ave.	Completed		Linwood
4/7/2014	Street Sweeping	Internal-Employee	W021638-040714	Patsy Dixon	City Wide	Collected 24 Cubic Yards of debris from: Branders Bridge Rd, Conduit Rd,	Completed		Linwood
4/10/2014	Street Sweeping	Internal-Employee	W021708-041014	Patsy Dixon	City Wide	Removed 24 cubic yards of debris from: Lakeview Ave, Dupuy Ave, Islands and Medians on Temple Ave and on Conduit Rd.	Completed		Linwood
3/13/2014	Street Sweeping	Internal-Employee	W021329-031314	Patsy Dixon	Boulevard	Collected 24 cubic yards of debris	Completed		Linwood
3/13/2014	Street Sweeping	Internal-Employee	W021330-031314	Patsy Dixon	Ellerslie Ave.	Collected 8 cubic yards of debris East and West Ellerslie	Completed		
3/13/2014	Street Sweeping	Internal-Employee	W021331-031314	Patsy Dixon	Ellerslie Ave.	Collected 24 cubic yards of debris East and West Ellerslie	Completed		
3/13/2014	Street Sweeping	Internal-Employee	W021357-031314	Patsy Dixon	City Wide	Sweep the following bridges collected 28 cubic yards of debris: Roslyn Rd, Ellerslie Ave, Conduit Rd, Boulevard.	Completed		

1600 - Sweeper Clean Street

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
3/14/2014	Street Sweeping	Internal-Employee	W021358-031414	Patsy Dixon	Boulevard	Collected 32 cubic yards of debris	Completed		Linwood
3/14/2014	Street Sweeping	Internal-Employee	W021359-031414	Patsy Dixon	Boulevard	Collected 28 cubic yards of debris.	Completed		Linwood
3/14/2014	Street Sweeping	Internal-Employee	W021360-031414	Patsy Dixon	Boulevard	Collecton 32 cubic yards of debris	Completed		
3/19/2014	Street Sweeping	Internal-Employee	W021369-031914	Patsy Dixon	Boulevard	Removed 3.5 cubic yards of debris from street	Completed		Linwood
12/17/2013	Public Works Miscellaneous	Internal-Employee	W020461-121713	Patsy Dixon	Wyth St Petersburg Va	Swept up sand, oil, dirt at Wyth St and I-95 Ramp from a auto accident spill removed 8 cubic yards of debris - 2 hours from 8am to 10am	Completed		
6/30/2014	Street Sweeping	Internal-Employee	W023015-063014	Patsy Dixon	1236 Briarcliffe Dr.	Swept Street collected 2 cubic yards of debris. Scott in Engineering has before and after pictures.	Completed		
4/23/2014	Street Sweeping	Phone	W021912-042314	Patsy Dixon	501 Eastwind Ct.	Swept the entire street	Completed		Linwood
9/4/2013	Street Sweeping	Internal-Employee	W019365-090413	Mike West	Hamilton Avenue	Completed	Completed		
3/12/2014	Street Sweeping	Phone	W021319-031214	Patsy Dixon	Seaton Dr.	Swept the entire cul-de-sac	Completed		Linwood
5/1/2014	Curb and Gutter Cleaning	Web	W022056-050114		200 block of Suffolk Ave.	Swept Street	Completed		Linwood
3/11/2014	Street Sweeping	Phone	W021317-031114	Patsy Dixon	1006 Colonial Ave.	Street swept.	Completed		Linwood
4/10/2014	Street Sweeping	Phone	W021705-041014	Patsy Dixon	200 MacArthur Ave.	Street swept.	Completed		Linwood
4/22/2014	Street Sweeping	Phone	W021872-042214	Patsy Dixon	200 MacArthur Ave.	Street swept.	Completed		Linwood

1600 - Sweeper Clean Street

Create Date	Request Type	Source	Reference No	Created By	Request Address One	Action Taken	Request Status	Cubic Yards	Foreman
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Department of Public Works Facilities

- DPW Area
- Impervious
- SW Controls
- BMPs
- Hotspots
- Use
- Use
- Administration
- Equipment Maintenance
- Fleet Maintenance
- Fueling Station
- Parking
- Stockpile
- Storage
- Discharges

