



Washington County

M A R Y L A N D

Protecting waterways through education, public participation  
and stormwater management



Submitted by:  
Division of  
Environmental  
Management  
April 9, 2018

# 2017 NPDES MS4 ANNUAL REPORT



Engagement



Information



Stewardship

# Contents

---

Part I. Purpose And Scope .....	4
Part II. Status Of Compliance With Permit Conditions.....	4
Part III. Reporting .....	5
Part IV. Permit Administration .....	6
Part V. Minimum Control Measures.....	7
1.0 Public Education and Outreach .....	7
1.1. BMP: Web Page .....	7
1.2 BMP Education Curriculum .....	7
1.2.1 Claud E. Kitchens Outdoor Education Center at Fairview .....	7
1.2.2 Science Curriculum Integration of Environmental and Water Quality .....	8
1.2.3 Elective Projects.....	9
1.2.4 Facilities Projects.....	9
1.3. Additional Outreach .....	9
1.3.1 Washington County Homebuilders Association Home Show.....	9
1.3.2 Boonsboro Green Fest .....	10
1.3.3 Stormwater Inlet Stenciling Program .....	10
1.3.4 Pet Waste Management .....	10
1.3.5 Washington County Solid Waste Recycling Program Outreach .....	10
2.0 Public Participation and Involvement .....	10
2.1. BMP: Reforestation – Streamside Tree Plantings in County Facilities .....	11
2.2 BMP: Rural Legacy Program.....	12
2.3 BMP: Forest Conservation Ordinance.....	12
2.4 Conservation Reserve Enhancement Program (CREP) .....	12
2.5 Recycling .....	13
2.6 Prescription Drug Turn-In Program .....	16
2.7 Tree Planting.....	16



3.0 Illicit Discharge Detection and Elimination .....	16
3.1 BMP: Illicit Discharge Detection And Elimination Program .....	16
3.1.1 Infrastructure Mapping .....	16
3.1.2 Investigation Of Illicit Discharge Complaints .....	16
3.1.3 Fuel Spill Response .....	17
4.0 Construction Site Stormwater Runoff Control .....	17
4.1. BMP: Continue to Administer the Washington County Erosion and Sediment Control Ordinance in Compliance with the Maryland Erosion and Sediment Control Program .....	17
4.2. Construction Inspection for SWM .....	19
5.0 Post-Construction Runoff Control .....	19
5.1. BMP: Continue to Administer the Stormwater Management Ordinance for Washington County, Maryland in Compliance with the Maryland Stormwater Management Program.....	19
5.1.1 SWM Regulations for Development .....	19
5.1.2 SWM BMP Triennial Maintenance Inspections.....	20
5.1.3 SWM BMP Maintenance .....	20
6.0 Pollution Prevention and Good Housekeeping .....	20
6.1. BMP: Permit Coverage Under the Maryland General Discharge Permit for Storm Water Associated with Industrial Activities for Applicable Washington County Facilities .....	21
6.2 Good Housekeeping.....	21
6.3 Watershed Restoration Plans .....	22
Part VI. Verification .....	23
Part VII. Going Forward.....	23
Attachments	
Letter from Maryland Department of the Environment .....	24
Maryland Department of the Environment’s Review of Washington County’s Stormwater Management Program.....	26



# Part I. Purpose And Scope

---

Washington County, Maryland is considered a Phase II Small Municipal Separate Storm Sewer System (MS4) and therefore must comply with the National Pollutant Discharge Elimination System (NPDES) MS4 Phase II permit requirements. On June 11, 2003, Washington County submitted an NPDES Phase II Notice of Intent (NOI) for coverage under the Maryland Department of Environment's (MDE) General Discharge Permit No. 03-IM-5500. Permit coverage was intended for five years with permit renewal required in 2008. On April 4, 2008, MDE informed Phase II MS4 NPDES permit holders that fifth year reports were not required. On January 28, 2010, MDE once again contacted Phase II MS4 NPDES permit holders to inform them that annual reports should resume again and should include any reports not submitted since the last annual report submittal. Washington County has submitted annually as required by state regulation. On December 22, 2016 MDE made a Tentative Determination to Re-Issue the MS4 General Permit to Municipalities. A final determination is expected in March of 2018.

The County's Phase II MS4 NPDES Permit No. 03-IM-5500 requires the implementation and ongoing management of six minimum control measures:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post Construction Stormwater Management
6. Pollution Prevention and Good Housekeeping

This report contains updates implemented in 2017 by Washington County to meet the criteria for the six minimum control measures.

# Part II. Status Of Compliance With Permit Conditions

---

Washington County continued to work toward compliance with Phase II MS4 NPDES Permit No. 03-IM-5500 requirements during this reporting period. Washington County will continue to work toward meeting the goals of the previous permit until a new permit is issued. The County is working to reduce pollutants discharged into the stormwater system by focusing on permit requirements and achieving measureable goals. Descriptions of activities related to each requirement are presented within the following document and illustrations.





## Part III. Reporting

### Maryland Department of The Environment (MDE) Water Management Administration (WMA)

#### ANNUAL REPORT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

This annual reporting form is intended for those jurisdictions covered under General Discharge Permit No. 03-IM-5500. Submitting this report constitutes notice that the entity identified below is making progress to comply with all terms and conditions of the general permit. Annual reports shall be submitted to:

Maryland Department of the Environment, Water Management Administration  
Nonpoint Source Program, FL 4, STE 440  
1800 Washington Boulevard, Baltimore, MD 21230-1708  
Phone: 410-537-3543 | Fax: 410-537-3553  
Website: [www.mde.maryland.gov](http://www.mde.maryland.gov)

#### 1. Contact Information

Jurisdiction Name: Washington County, Maryland  
Program Coordinator: John W. Swauger, Jr.  
Mailing Address: 16232 Elliott Parkway  
Williamsport, MD 21795  
Phone Number: 240-313-2611 | Fax Number: 240-313-2601  
Email: [jswauger@washco-md.net](mailto:jswauger@washco-md.net)

#### 2. Certification Statement And Signature

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 gathered and evaluated the information submitted. Based upon 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, 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.

Signature:   
Date: 04/9/2018

Printed Name: Robert J. Slocum, P.E.  
County Administrator



# Part IV. Permit Administration

---

Coordination of the Washington County NPDES Phase II MS4 Permit No. 03-IM-5500 was performed by the Division of Environmental Management (DEM). The following entities are responsible for major Phase II MS4 NPDES program tasks:

## **Division of Environmental Management (DEM)**

- Phase II NPDES MS4 Coordination & Implementation
- Stormwater Management Coordination
- Watershed Planning
- Watershed Implementation Plan
- Solid Waste Recycling Program
- NPDES Industrial Discharge Permits for Landfill Facilities
- Mapping of Stormwater Drainage System

## **Division of Construction**

- Construction & Maintenance Inspections of SWM BMPs
- Dry Weather Outfall Inspections

## **Division of Engineering**

- Engineering & Construction of SWM Restoration Projects

## **Division of Plan Review and Permitting**

- Site Plan Review and Approval for SWM

## **Department of Planning and Zoning**

- Rural Legacy Program
- Forest Conservation
- Conservation Reserve Enhancement Program (CREP)

## **Division of Public Works (DPW)**

- NPDES Industrial Discharge Permits for Public Works Facilities

### **Highway Department**

- Maintenance of Publicly Owned SWM BMPs
- Good Housekeeping

### **Parks & Facilities Department**

- Tree Plantings on County Property
- Good Housekeeping

## **Department of Geographic Information Systems (GIS)**

- Administration of GIS Geodatabase and Mapping
- Technical Assistance to Users of Mapping
- Maintenance of Software for Collection of Attributes

## **Washington County Soil Conservation District (WCSCD)**

- Sediment & Erosion Control Review
- Pre-Construction Meetings
- Close-out Meetings

## **Washington County Public Schools (WCPS)**

- Education Curriculum
- Tree Plantings

## **Washington County Sheriff's Office**

- Prescription Drug Collections

## **Washington County Division of Emergency Services (DES)**

- Fuel Spill Response
- Hazardous Material Response



# Part V. Minimum Control Measures

## 1.0 Public Education and Outreach

### Program Description

Washington County utilizes the county website, the Washington County Public School system and public venues to disseminate information regarding water quality and stormwater runoff. The Washington County Stormwater Management (SWM) web page, which can be found at <http://www2.washco-md.net/DEM/swm/index.shtm>, is the primary means of providing information about stormwater management to the public. Washington County Public Schools (WCPS) integrates water quality and environmental quality education into the curriculum of the public school system. These educational programs continue to be offered to Washington County students through the public school system.

### 1.1 BMP: Web Page

Goal: Use the Washington County website to disseminate information to citizens regarding stormwater runoff and nonpoint source pollution.

#### 2017 Progress

The stormwater management web page link is located on the Division of Environmental Management (DEM) web page and is updated on a continual basis.

Visit [www2.washco-md.net/DEM/swm/index.shtm](http://www2.washco-md.net/DEM/swm/index.shtm) for more information.

### 1.2 BMP Education Curriculum



*Students at Claud E. Kitchens Outdoor School at Fairview*

Goal: Integrate water quality and environmental quality education into the public school system curriculum.

#### 2017 Progress

#### 1.2.1 Claud E. Kitchens Outdoor Education Center at Fairview

Claud E. Kitchens Outdoor School at Fairview (CEKOS) is owned and operated by WCPS. It is nestled at the foot of Fairview Mountain in Clear Spring, Maryland. With just over 100 acres of land including hardwood forests, meadows, streams and ponds, it provides a living classroom for students to study the environment. Students of all grades visit the CEKOS at various times

throughout the school year for hands-on learning about many environmental issues and the affect humans have on the environment. In 2017, CEKOS provided environmental education to over 3,900 students from elementary, middle and high schools, nearly 300 teachers and more than 650 parents – focusing on the Chesapeake Bay watershed and environmental stewardship.

- Every fifth-grade student in Washington County visits during the school year to benefit from a fun-filled and educational week. Students spend four days and three nights with their teachers, classmates and parent chaperones while exploring science and environmental issues with hands-on learning in an outdoor environment.
- The Washington County Envirothon competition took place at CEKOS on Friday, April 21, 2017. Teams consisting of five students, representing three WCPS high schools took part in the event. The competition required students to apply their knowledge of freshwater fish, forestry, soils, wildlife and local habitats.





- The faculty at CEKOS also provide day trip opportunities for Washington County students Kindergarten through 12th grade. Day trips are provided to students as classroom teachers request and schedule open dates at the outdoor school facility. Day trips are aligned to Next Generation Science Standards (NGSS) at each grade level and supplement student learning on environmental science topics. In 2017, CEKOS day trips involved over 2,000 students and 200 WCPS teachers.

## 1.2.2 Science Curriculum Integration of Environmental and Water Quality

- Environmental science is a part of the WCPS science curriculum for all students in grades K, 2, 5, 6 and in high school Biology and AP Environmental Science. With the full implementation of the NGSS, there is a greater emphasis on environmental understanding and action. These standards were fully implemented in the Fall of 2017.
- WCPS instructional leaders are in the process of integrating STEM standards of practice and the Maryland Environmental Literacy Standards across the PreK-12 curriculum. This will lead to a more systemic and intentional integration of Environmental Literacy Standards across the curriculum. A goal of this integration is to include systemic “meaningful watershed educational experiences” in elementary, middle and high schools. WCPS has applied for a grant through the Chesapeake Bay Trust to help fund professional development for this purpose.
- The Career and Technology Education program at Clear Spring High School includes an Environmental Natural Resources Academy. Foundations of Agriculture is the entry-level course for this academy. The course includes an in-depth study of watershed science. As a part of the course students visit the Chesapeake Bay at Taylor’s Landing, to participate in micro and macroinvertebrate studies, as well as soil analysis.
- Every fourth-grade student (1,600+) in WCPS takes part in a joint social studies / science field trip to the C&O Canal at Cushwa Basin where they study the history and environmental features of the area.
- During the first week of April each year, every second and third grade student (approx. 3,300) will take home a tree to plant in honor of Maryland Arbor Day. The trees are provided through the Maryland Department of Natural Resources (DNR).
- Approximately 170 students and teachers from six high schools worked with the National Park Service personnel in the Fall of 2017 to provide water quality and environmental data for a long-term study along the watered areas of the C&O Canal and the Potomac River. In May 2017, four students from North Hagerstown High School presented their findings to legislators in Annapolis, as part of the Maryland State Watershed Report Card program.
- WCPS is in the final year of its partnership with the University of Maryland Center for Environmental Studies (UMCES) in Frostburg, Maryland, to develop and implement a three-year watershed study involving nitrate levels in school-yard run off. Collected samples are analyzed at the UMCES lab to determine the terrestrial or atmospheric origin of nitrate concentrations in school-yard runoff.
- On April 20, 2018, a county Envirothon will be held on the grounds of the WCPS Center for Educational Services. This is part of the ongoing development of these grounds as a school-yard for learning.
- In November, a representative from WCPS attended the Regional Environmental Education Summit at the National Conservation Training Center in Shepherdstown, West Virginia. Two students from North Hagerstown High School addressed the conference regarding their experiences in environmental education.
- The Washington County Watershed Specialist, has been working with a teacher at Clear Spring High School to install industry standard water analysis equipment in Toms Run, Clear Spring, Maryland. The goal is for students to collect and analyze data related to stream health. Discussions are currently ongoing about the possibility of duplicating this project on Hamilton Run, near North Hagerstown High School, Northern Middle School and Fountaindale Elementary School.
- AP Environmental Science (APES) teachers planned and executed the first ever, three-day residential field camp at CEKOS. 11 high school students from five WCPS high schools participated in three days of rigorous environmental studies designed to front-load key course concepts. Students worked in the field to collect and analyze data related to forest health, invasive species, land use and water quality. The camp included a canoe trip on Big Pool and studies on the Potomac River. The trip was supported by the county Watershed Specialist. The camp was a great success. Plans are underway to expand this opportunity in the summer of 2018.



*Students at Fountaindale Elementary School - Wetland Project*





- 63 rising ninth grade students participated in our inaugural, three-day STEM day-camp at CEKOS from June 20 to June 22, 2017. Students used various technologies including drones and robotics while considering solutions for environmental issues.
- We are currently planning for 40 sixth grade students from 4 different WCPS middle schools to visit NorthBay Adventure Camp from February 26 to March 2, 2018. While at NorthBay students will participate in outdoor/ environmental learning that integrates problem solving across academic disciplines. NorthBay is in Cecil County, Maryland on the northern end of the Chesapeake Bay.

### 1.2.3 Elective Projects

Schools may have extracurricular opportunities that involve students in environmental projects such as tree plantings, storm drain stenciling, environmental analysis and action, rain garden / rain barrel projects, etc. The following list of projects were either started, completed or ongoing in 2017:

- Fountaindale Elementary has researched and reclaimed a wetland area on their campus, turning it into an outdoor classroom filled with appropriate flora. Students and teachers at Fountaindale Elementary are regularly involved in nature studies in their wetland/stream area.
- Boonsboro Middle School plants 100 – 200 trees annually in collaboration with the town of Boonsboro to provide a growing buffer area along the stream running through Shafer Park.
- Numerous elementary and middle schools in Washington County plant and care for school vegetable gardens and decorative rain gardens
- Students in agricultural programs at Boonsboro, Clear Spring and Hancock High Schools study and apply sustainable farming practices that include farming practices designed to protect local waterways.
- CEKOS staff plan, promote and present community outreach opportunities including the Maple Sugar Festival, Fishing Rodeo and Tree-Tapper 5K that help promote environmental awareness and stewardship in the community.

### 1.2.4 Facilities Projects

- WCPS has ten schools that have been awarded green school status as well as one green center (CEKOS). These schools all incorporate sustainable strategies.
- Artificial Wetland Outreach  
The Board of Education has incorporated environmental education and activities into construction activity on school property. This includes creation of artificial wetlands within stormwater management structures that are built as part of school construction projects.

## 1.3. Additional Outreach

### Program Description

In addition to the web page and public education, Washington County staff members participate in various programs that place an emphasis on water quality. Washington County utilizes these public venues to disseminate information regarding the various aspects of the stormwater management program and the Phase II MS4 NPDES program.

### 2017 Progress

#### 1.3.1 Washington County Homebuilders Association Home Show

Washington County participated in the 2017 Washington County Home Builder's Association Home Show on March 18th & 19th. Information displayed and provided included Stormwater Management (SWM) Best Management Practices (BMPs) for residential lots, recycling, planning and permitting. Staff members were on hand to provide informational handouts and to answer questions. One commercially manufactured rain barrel and accompanying soaker hose, donated by Home Depot of Hagerstown, were given away as part of a free raffle ticket drawing.



### 1.3.2 Boonsboro Green Fest

The Washington County Division of Environmental Management (DEM) participated in the 9th Annual Boonsboro Green Fest on May 13th, 2017. Information provided included single lot type BMPs (rain barrels and rain gardens) that homeowners could implement relatively easily, pet waste management, storm inlet stenciling, watershed education and recycling. Staff members were available to answer questions and to distribute informational handouts. Participants were also able to take part in the water filter experiment in which they were able to build a water filter to see the effects of proper stormwater management filtering practices. Visitors to the booth were also given a Chesapeake Bay coloring books and recycling activity books for the children. A commercially available rain barrel was given away as part of a free raffle. The event was well attended by approximately 3,000 visitors.



### 1.3.3 Stormwater Inlet Stenciling Program

The Division of Environmental Management continues to lend out stencils for any interested groups who wish to stencil stormwater inlets. The goal of the program is to educate citizens and build awareness of the impact that stormwater can have on the health of our local streams and rivers, and the impact to fish and animals that depend on these water bodies. The County will be expanding the current scope of the stenciling program to include all HUC8 watersheds in Washington County, not just the HUC8 watersheds with active local TMDLs.

### 1.3.4 Pet Waste Management

Washington County continues to maintain over 20 pet waste stations at 11 County parks as part of a pet-friendly and environment-friendly program. Additional pet waste stations are located at various municipal parks. A partnership with PetSmart made the installation of over 70 pet waste stations possible at parks across the County and within various municipalities. DEM anticipates further collaboration with PetSmart in 2018 to establish additional pet waste stations.

### 1.3.5 Washington County Solid Waste Recycling Program Outreach

The Recycling Program Coordinator visited six WCPS, a Washington County Recreation summer camp and one daycare to provide information on recycling and the benefits to the environment. Information about the amount of trash that is thrown away every day is provided to the students. The Coordinator then guides the discussion toward the three R's (Reduce, Reuse, Recycle). Emphasis is put on how recycled materials can be used in the manufacturing of other products that we use every day. Students are provided with the recycling statistics for Washington County and how the County is one of the leaders in the state in the recycling effort. Finally, the students participate in a game of trying to determine the decomposition time of specific items that are commonly thrown into the trash.

The Department of Solid Waste (DSW) also provided tours to 29 students from two Washington County schools. The tour allows students to view the landfill process of accepting and burying trash and to emphasize the need for recycling to prevent the filling of landfills and wasting of valuable resources.

### 1.3.6 Bay Journal Subscription

Washington County Division of Environmental Management receives and distributes approximately four dozen copies of the Bay Journal publication each month to several of its facilities that have direct contact with the general public. The intent is to increase awareness about how water quality effects wildlife and fisheries within the Chesapeake Bay Watershed.



## 2.0 Public Participation and Involvement

### Program Description

Washington County provides opportunities for outreach and education related to stormwater runoff through a variety of public participation and public involvement programs. The four primary programs implemented to meet the requirements of the Phase II MS4 NPDES permit are Reforestation-Streamside Tree Plantings, Rural Legacy Program, Forest Conservation Ordinance and Conservation Reserve Enhancement Program (CREP).

The Streamside Tree Planting Program encourages public participation through coordination with the Washington County Soil Conservation District (WCSCD) and the Washington County Parks and Facilities Department in planting of trees along the banks and overbank areas of streams in existing County facilities.

The Rural Legacy Program is implemented by the Washington County Department of Planning and Zoning. The program seeks to protect farmland and open space which contains significant agricultural, environmental and cultural/historic features. The Maryland Department of Natural Resources (DNR) funds the program and protects land mainly with the use of permanent easements. The Rural Legacy Program encourages local governments and private land trusts to identify Rural Legacy Areas and to competitively apply for funds to complement existing land preservation efforts or to develop new ones. Easement purchases are sought from willing landowners in order to protect areas vulnerable to sprawl development. In Washington County, this program only purchases easements within a very specific area, surrounding the towns of Sharpsburg, Keedysville, Boonsboro and the rural villages of St. James, Lappans, Fairplay, Rohrsersville and Gapland to name a few.



*Tree Planting at stormwater pond*

The Forest Conservation Ordinance requires that any subdivision of land or development that removes or disturbs 20,000 square feet or greater of forest area requires mitigation plans to be submitted to the Planning Commission for approval. The Forest Conservation Ordinance strives to limit the loss of forest cover as land is developed. The ordinance, mandated by the State of Maryland since 1991, allows several options to mitigate the loss of forest cover that are implemented during the development review process. Options for remediation include: on-site retention or planting, off-site retention or planting, natural regeneration, and payment-in-lieu of planting or retention. The County, in cooperation with the WCSCD, has successfully developed a program where the payment-in-lieu of planting funds are used for easement purchases and plantings in sensitive environmental areas. The collected funds provide the opportunity to plant and then protect, by easement, large contiguous areas of forest rather than promote small-scattered forested areas in order to enhance optimum benefit to the environment.

The Conservation Reserve Enhancement Program (CREP) is part of a Memorandum of Agreement (MOA) between the United States Department of Agriculture and the State of Maryland. The focus of the MOA is to protect water quality by removing marginal agricultural land from production and replacing it with best management practices including riparian buffers, stabilization of highly erodible soils and restoration of wetlands. There is a two-tier system to accomplish these water quality improvements. First, the landowner enters into a 15-year lease contract (CREP contract) to take land out of production and to install best management practices for water quality. For some of that land, a second step involves permanently protecting the land taken out of production and the best management practices on it by selling a permanent conservation easement. The CREP easement program is administered by the Land Acquisition and Planning Unit and is funded from Program Open Space funds. The easements are acquired by land trusts or counties from interested landowners who voluntarily agree to sell conservation easements. The completed recorded easements are held jointly by the land trust or the county and DNR.

These three programs work in conjunction with other existing Agricultural Easement programs to attain the County's overall goal of 50,000 acres of preserved lands.



## 2.1. BMP: Reforestation – Streamside Tree Plantings in County Facilities

Goal: Improve the existing condition of streams in County facilities by planting trees and other vegetation along the banks and overbank area. The County coordinated this activity with similar WCSCD programs. Utilizing public participation and involvement where possible.

### 2017 Progress

The Washington County Department of Parks and Facilities is responsible for planting trees at County owned parks. In 2017, 12 Swamp White Oak trees, 12 Red Oak trees, and three Red Bud trees were planted at Doubs Woods Park.

## 2.2 BMP: Rural Legacy Program

Goal: Maintain the Rural Legacy Program and establish the Rural Legacy Board to counteract the effects of sprawl development and other modifications to the landscape in Washington County and to enhance natural resources, agriculture, forestry and environmental protection while maintaining the viability of resource-based land usage and proper management of tillable and wooded areas through accepted agricultural and silvicultural practices for farm production and timber harvests. Protection will be provided through acquisition of easements from willing landowners, and the supporting activities of Rural Legacy Sponsors and local governments.

### 2017 Progress

Five easements were executed, for approximately 331 acres, at a cost of \$1,036,922. Every project mandates stream buffering with trees and occasionally grasses. Landowners are also asked to provide 100 feet of buffering on each side of stream.

## 2.3 BMP: Forest Conservation Ordinance

Goal: Create and implement the Forest Conservation Ordinance for Washington County. The ordinance will provide requirements and guidance for the preservation or replanting of trees or forests during certain development activities by requiring forest stand delineations, forest conservation plans, maintenance agreements and sureties.

### 2017 Progress

During calendar year 2017 Washington County continued implementation of the program as it has since 1993. In 2017, an additional 148.74 acres of mixed forest conservation was protected by easements.

## 2.4 Conservation Reserve Enhancement Program (CREP)

Goal: Create permanent, natural buffers on land adjacent to the County's waterways in order to improve the health of the County's many Potomac River tributaries and to facilitate the natural habitat of the wildlife species native to the county. This program works in conjunction with the Natural Resource Conservation Service Farm Service Agency's (FSA) CREP Contract program which establishes 12 or 15-year buffers on County waterways.

### 2017 Progress

One easement was executed for one property for a total of 20 acres, which was donated. Each project mandates stream buffering with trees or grasses over FSA's original CREP Contract area. The project also gives the landowner the option to add additional, less-restricted matching acreage to the easement which aims to minimize agricultural land disturbance.





## 2.5 Recycling

The Division of Environmental Management's Department of Solid Waste (DSW) is responsible for managing the recycling program and promotes recycling through various ads, school presentations and tours. Washington County's recycling program is completely voluntary with the County providing convenient drop sites for use by the public. Washington County's Recycling Program provides the means for voluntary participation in recycling a host of items which helps to reduce stormwater pollution. Various businesses in Washington County also participate in recycling as part of their company culture with some businesses taking in recycled products to use in the production phase of their business. The quantities of products that are recycled by business are reported to the DSW and are available upon request. In 2017, the following notable accomplishments of the program for recycling were recorded (See Table 1 below).

2017 Recycling Total	
Tires	91 tons
Electronics	80 tons
Batteries	0.50 tons
Yard Waste	Approximately 2,500 tons
Newspapers, glass, plastic, etc.	646 tons
2017 Phone Book Recycling	5,325 books
Oil	16,825 gallons
Antifreeze	1,015 gallons

Table 1



## **FOR IMMEDIATE RELEASE**

### **CONTACT:**

**James Jenkins**

Phone: 240-313-2384

Email: [jajenkins@washco-md.net](mailto:jajenkins@washco-md.net)

## **FOUNTAIN ROCK ELEMENTARY WINS RECYCLING CHALLENGE**

*Grosh's Lawn Service Phone Book Recycling Challenge encourages students to recycle phone books*

HAGERSTOWN, Md. (June 14, 2017) - As a result of Washington County student efforts, 5,325 phone books were recycled as part of the Grosh's Lawn Service 2017 Phone Book Recycling Challenge. This equals a savings of six cubic yards of County landfill space.

Leading the collection effort with a total number of 2,321 phone books, the Washington County Board of Commissioners is pleased to recognize the outstanding achievement of Fountain Rock Elementary, this year's first place winner. Fountain Rock Elementary averaged 10.4 phone books collected per student.

Funkstown Elementary and Antietam Academy placed second and third respectively collecting a combined total of 664 phone books. Williamsport Elementary and Heritage Academy rounded out the top five with 1,070 phone books.



*Front Row (L/R): Annie Right, Catherine Warren, Riley Bossler, Addison Arnett, Aiden Arnett; Middle Row: Will Kline, Eliason Arnett, Austin Zonis, Will Wright; Back Row: Anthony Drury, Nicole Paylor (Principal), Tom Grosh*

With this tremendous effort, the County's students helped save:

- 34 Trees
- 127 Gallons of Oil
- 84 Gallons of Gas
- 13,930 Gallons of Water
- 119 Pounds of Air Pollution
- 8,378 Kilowatt hours of electricity

The top five schools will receive prizes ranging from \$70 - \$675.

Sponsors for the 2017 Phone Book Recycling Challenge prizes include: Grosh's Lawn Service, EZtoUse.com and the Washington County Teachers Federal Credit Union.

For more information, please contact Washington County Public Relations and Community Affairs at [publicaffairs@washco-md.net](mailto:publicaffairs@washco-md.net) or 240-313-2380.

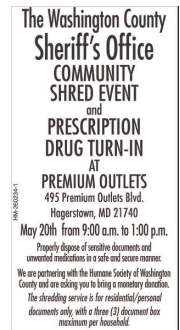
Final Results: 2017 Telephone Book Recycling Challenge						
School	Contact Person	# of Students	# of Books	Books / Students	Prize	Grosh
Fountain Rock Elementary	Bettyjo Zonis	223	2321	10.40	\$675	\$500
Funkstown Elementary	Nancy Kirkpatrick	126	420	3.33	\$380	\$250
Antietam Academy	Mary Fortson	126	244	1.93	\$215	\$125
Williamsport Elementary	Stacie Hood	583	862	1.47	\$160	\$100
Heritage Academy	Stephanie Stamper	175	208	1.51	1.18	\$25
Marshall Street School	Amy Norris	83	73	0.87		
Hancock Elementary	Erin Blickenstaff	260	408	0.71		
Maugansville Elementary	Leslie Robinson	735	506	0.68		
Clear Spring Elementary	Priscilla Howard	420	190	0.45		
Ruth Ann Monroe	Libby Baumgardner	530	158	0.29		
Cascade Elementary	Nancy Kell	175	45	0.25		
Old Forge Elementary	Nancy Kell	369	79	0.21		
Pleasant Valley Elementary	Joy Gallupe	223	25	0.10		
Western Heights Middle School	Debra Isenberger	877	8	0.01		
BISFA	Rob Hovermale	287	0	0.00		
Clear Spring High School	Elizabeth McCarty	495	0	0.00		
Total Books Collected			5325			
			Total Prizes		\$1500	\$1000

(Table 2)



## 2.6 Prescription Drug Turn-In Program

The Washington County Sheriff's Office in partnership with the Washington County Health Department completed its sixth year of Prescription Drug Turn-In Program. The agencies conducted several drug collection events during 2017 at various times and locations throughout Washington County and accepted medications from the public at the Sheriff's Patrol Division, 24 hours per day, seven days per week. In 2017, approximately 3,200 gallons of medications were collected during the turn-in events. With this year's collection, the Prescription Drug Turn-In Program has taken in approximately 17,000 gallons of medications since the inception of the program.



## 2.7 Tree Planting

In addition to the tree planting completed in Section 2.1 BMP: Reforestation – Streamside Tree Plantings in County Facilities, the Town of Boonsboro Maryland planted three additional trees in Shafer Park, in Boonsboro, Maryland.

## 3.0 Illicit Discharge Detection and Elimination

### Program Description

Washington County currently focuses its efforts in Illicit Discharge Detection and Elimination (IDDE) Program development into two categories: infrastructure mapping and investigation of illicit discharge complaints.

### 3.1 BMP: Illicit Discharge Detection And Elimination Program

Goal: Develop a program for identifying and eliminating illicit connections to the portion of the Washington County storm drain system that is located in the 2000 Census Urbanized Area for Hagerstown, MD - WV - PA.

#### 2017 Progress

#### 3.1.1 Infrastructure Mapping

Washington County continues to update its GIS Mapping of all SWM BMPs, with the exception of those within the City of Hagerstown. In 2016, the County contracted with Army Corp of Engineers (ACOE) to begin a multi-phase project to map the County's storm drain system. Phase I began in the urbanized area (UA) of the Antietam Creek watershed. In 2017, the county continued the mapping project in the Antietam Creek Watershed with an additional 4,189 features collected. To date, approximately 7,916 points (pipes, inlets, drainage swales) have been mapped as a result of the ACOE mapping project.

In addition, approximately 1,790 SWM BMPs and their respective outfalls are currently mapped and updates to the map continue. In 2017, 78 county-owned SWM BMPs and their respective outfalls were inspected. The GIS Department is currently working on integrating the outfall inspections into the GIS geodatabase in order to better comply with permit inspection requirements.

#### 3.1.2 Investigation Of Illicit Discharge Complaints

##### Complaints

Washington County currently relies on complaints from the general public to assist in identifying potential illicit discharges. The county's main web page and the Stormwater Management web page contain an Illicit Discharge Complaint link for use by the general public to report suspected illicit discharges. In addition to citizen input, the Washington County Division of Construction's inspectors are required to report any illicit discharges observed when in the field as part of their regular inspection duties.

Washington County investigates and relays valid complaints to the Maryland Department of the Environment for investigation and resolution.





No illicit discharge complaints were received in 2017. Washington County plans to become more proactive in 2018 with regards to the IDDE program. Staff from both DEM and Public Relations have begun the process of developing a plan to engage and inform the public about illicit discharges.

### 3.1.3 Fuel Spill Response

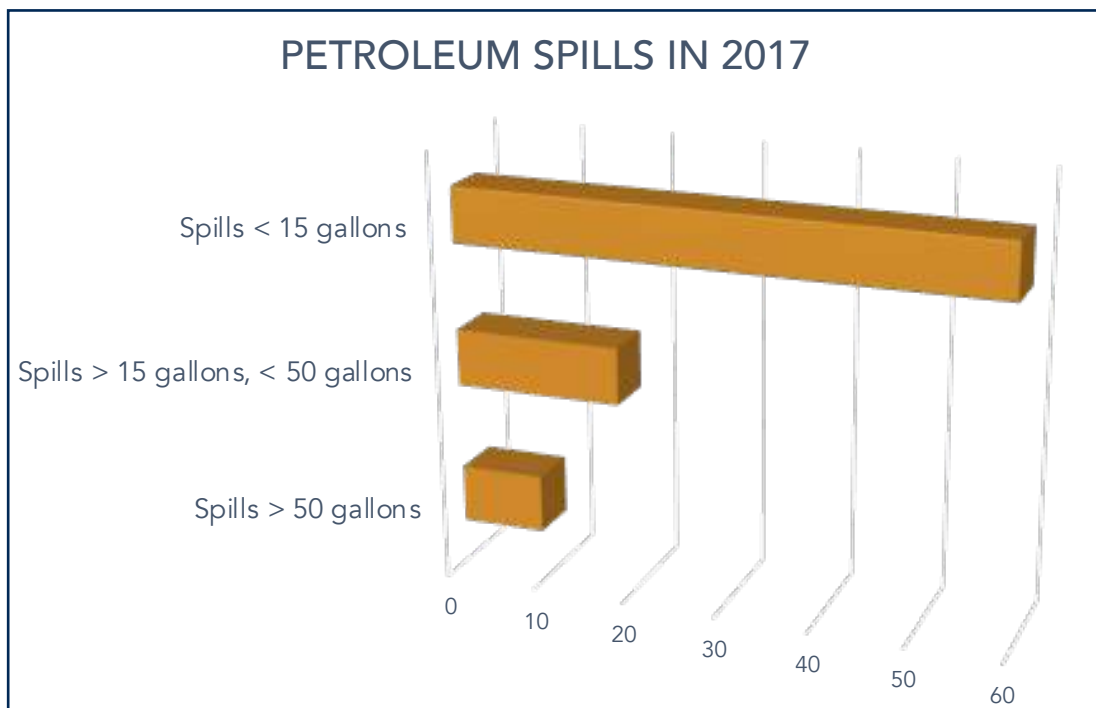


Chart 1

Washington County's Volunteer Fire Companies typically serve as the first responders to a spill event based upon calls to the Emergency Communications 9-1-1 Center. The immediate goals of this response are safety, containment of the spill and recovery of hazardous materials. Washington County's Special Operations Team responds for specialized type responses requiring immediate, spill containment, mitigation and recovery. In 2017, the Special Operations Team responded to 59 petroleum spills less than 15 gallons, 18 petroleum spills greater than 15 but less than 50 gallons, and nine petroleum spills greater than 50 gallons. Hazardous material responses and petroleum spill responses are coordinated with the State of Maryland Environmental Spill Response Team as necessary. Emergency response data regarding spills such as location, types of spills, recovery efforts and any type of information specific to the cause or responsible parties are maintained by Washington County Special Operations and are available upon request.

## 4.0 Construction Site Stormwater Runoff Control

### Program Description

Washington County continues to rely on the Maryland Department of the Environment (MDE) for inspection and enforcement of sediment and erosion control on active construction sites. Review and approval of Soil Erosion and Sediment Control (ESC) plans are performed by the Washington County Soil Conservation District (WCSCD). The Washington County Division of Construction provides construction inspection for all stormwater management BMPs.

### 4.1. BMP: Continue to Administer the Washington County Erosion and Sediment Control Ordinance in Compliance with the Maryland Erosion and Sediment Control Program

Goal: Develop, implement and enforce a program to reduce pollutants from construction activities that result in a land disturbance of greater than or equal to one acre.



## Erosion & Sediment Control Review Fully Engineered ESD Plans

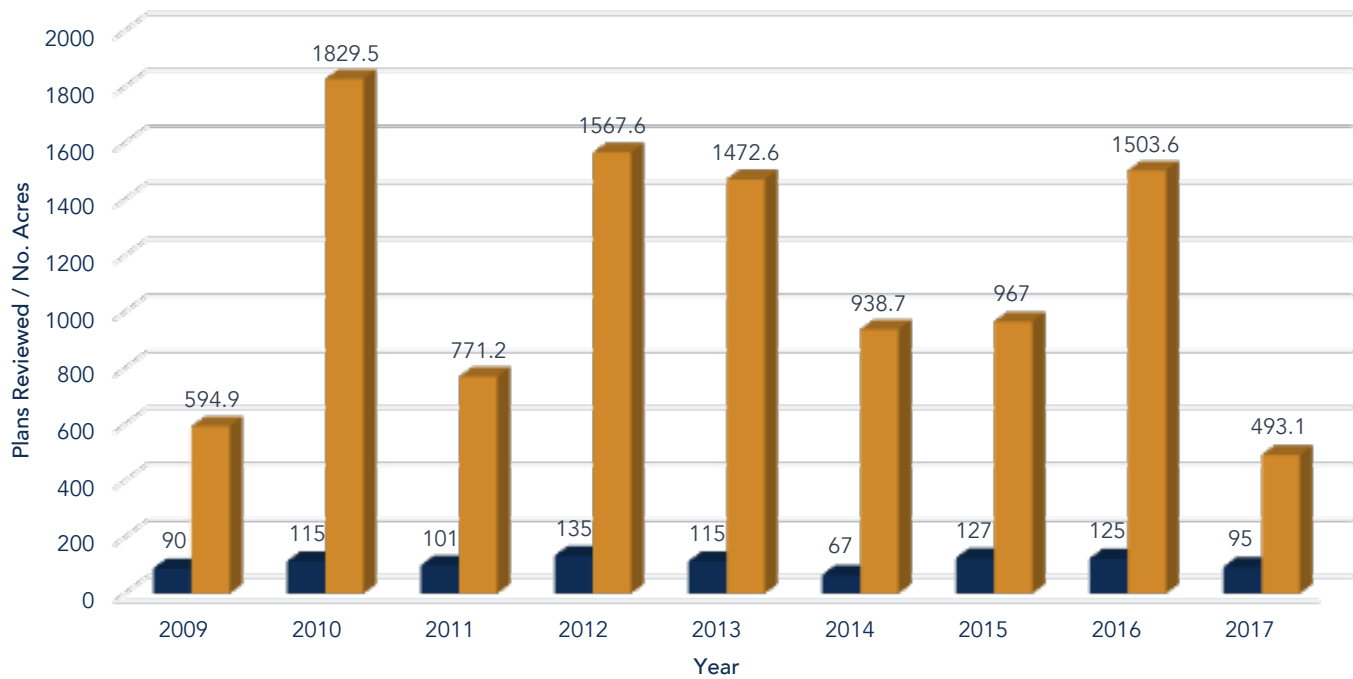


Chart 2

## Erosion & Sediment Control Review ESD Standard Plans

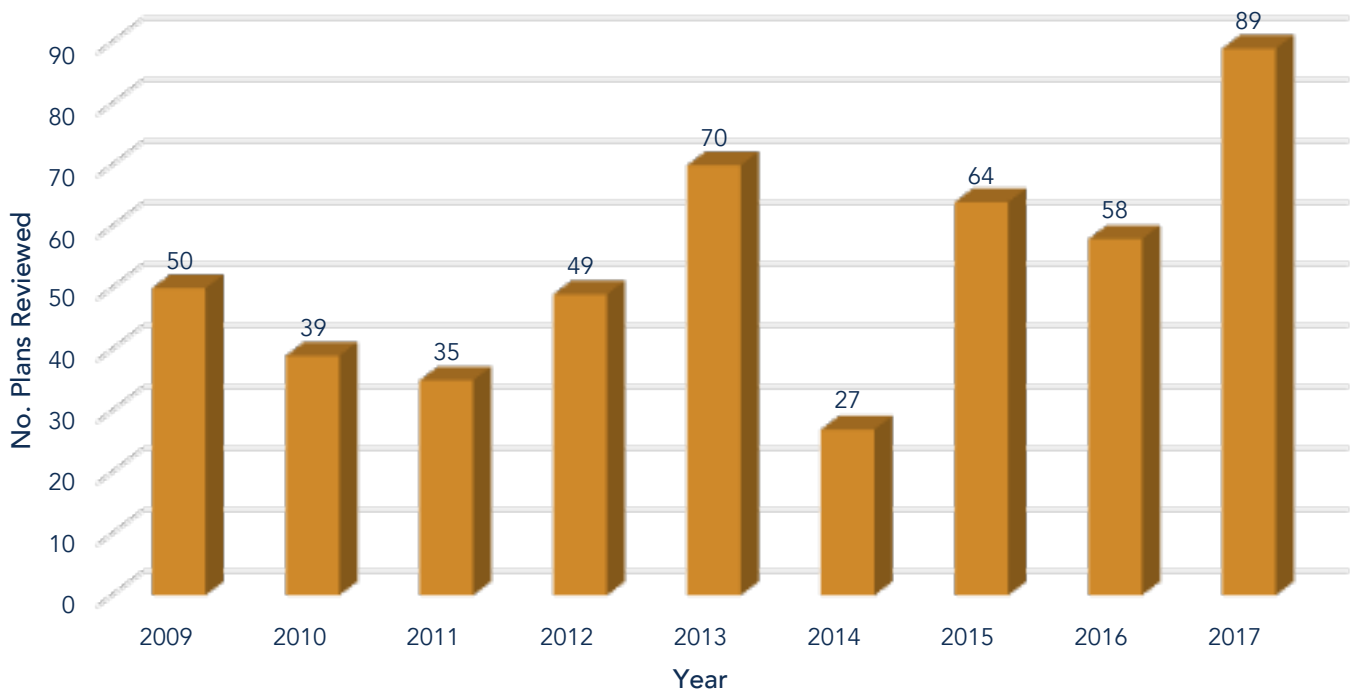


Chart 3



In 2017, WCSCD approved 95 ESC plans for sites greater than or equal to 30,000 square feet of disturbance, totaling 493.1 acres and 89 ESC standard plans.

## 4.2. Construction Inspection for SWM

To ensure public safety and to reduce the risk for sediment pollution at construction sites, critical inspections for newly constructed SWM BMPs are completed by the Washington County Division of Construction. The Division currently utilizes three full-time construction inspectors on staff to perform all required SWM field inspections in addition to complaints regarding drainage systems and conveyance systems in Washington County. The Division continues to document inspection data through the use of Accela Automation Inspection Tracking Software. The system tracks SWM construction inspections, maintenance inspections, inspection correspondence and service requests related to drainage and conveyance systems. In 2017, construction inspectors completed a total of 2,113 construction inspections for SWM BMPs, attended 123 pre-construction meetings for sites proposing new SWM BMPs and completed 59 as-built inspections of completed projects.

The Washington County Division of Construction inspectors have completed the Responsible Personnel Certification as well as staff members with the Division of Public Works and Division of Solid Waste who are responsible for sediment and erosion control on their job sites.

## 5.0 Post-Construction Runoff Control

### Program Description

Post-construction runoff control involves ensuring that permanent SWM is in place for all development and that maintenance of these systems is adequately performed on a regular basis to maintain proper function. Washington County's post construction runoff control programs include: SWM Regulations for Development and SWM BMP Maintenance Inspections.

### 5.1. BMP: Continue to Administer the Stormwater Management Ordinance for Washington County, Maryland in Compliance with the Maryland Stormwater Management Program

Goal: Develop, implement and enforce a program to address stormwater runoff from new development and redevelopment once the construction phase is complete.

The County has developed and implemented a plan review criteria consistent with current Maryland law and regulations which require that Environmental Site Design (ESD) be used to the maximum extent practicable (MEP) to control stormwater from new and redevelopment.

### 2017 Progress

#### 5.1.1 SWM Regulations for Development

As a County government with delegated authority from MDE for stormwater management, Washington County is required to maintain an adequate, approved and adopted Stormwater Management Ordinance to meet or exceed the minimum requirements of Maryland state law.

The County's current ordinance was adopted by the Washington County Board of County Commissioners (BCC) on August 24, 2010, with an effective date of May 4, 2010. The ordinance was repealed and reenacted with Amendments (Revision 1): Adopted December 18, 2012, effective January 9, 2013. The current ordinance is in compliance with the Stormwater Management Act of 2007 and the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.



The Division of Engineering manages and improves public infrastructure and related stormwater management facilities, as identified in the capital improvement plan; such as roads, storm drains, drainage channels, grading and vegetation. The Division of Plan Review and Permitting is responsible for plan review and permitting land development in compliance with the ordinance. In 2017, the Division of Plan Review and Permitting reviewed 16 ESD concept plans in addition to reviewing and approving 28 fully engineered site plans and 59 standard stormwater plans in accordance with ESD to the MEP policy. All permitted plans require approval, inspection and as-built documentation.

On June 6, 2017, the Maryland Department of the Environment, Water and Science Administration (MDE/WSA) completed a triennial review of Washington County's stormwater management program. MDE found the majority of the County's program to be performing adequately but did find some areas that need improvement. A copy of the MDE report is included in the attachments of this annual report.

In order to stay current on stormwater regulation, trends and innovations; Washington County staff members attempt to attend as many seminars and webcasts as possible. Two staff members of DEM attended the May 18, 2017 seminar titled "Lessons Learned in Restoration & Program Implementation: From Program Startup to Innovations in BMP Design," hosted by the Chesapeake Water Environmental Association (CWEA). Three staff members attended the December 13, 2017 seminar titled "Stormwater, Too Simple?" also hosted by CWEA. Four staff members of the Divisions of Plan Review and Permitting and Division of Construction attended the Maryland Association of Floodplain and Stormwater Managers Annual Conference in October of 2017.

### 5.1.2 SWM BMP Triennial Maintenance Inspections

The Washington County Division of Construction is responsible for maintenance inspections for both privately owned and publicly owned SWM BMPs. For private and public facilities, the County performs triennial inspections to ensure that proper maintenance is being completed by the owners on the BMPs. In preparation for the new NPDES Phase II permit requirements, the SWM access database was assimilated into a GIS geodatabase in 2017. All SWM BMP attributes are now maintained in the GIS geodatabase by DEM with guidance from the Washington County GIS Department. This change allows for automation and tracking of all SWM BMPs and associated triennial inspections in a GIS environment. The new GIS geodatabase also meets MDE's data reporting requirements of the proposed NPDES Permit.

In 2017, 521 Triennial Inspections were completed of which 39 BMPs were cited for maintenance issues. All but 12 BMPs cited were brought back in to compliance in 2017. Primarily, correction notices were related to minor issues such as mowing, woody vegetation removal, minor erosion issues and rodent holes. In addition to performing triennial inspections, the construction inspectors investigated 107 stormwater/drainage complaints of which all but one has been resolved in 2017.

### 5.1.3 SWM BMP Maintenance

The Washington County Division of Public Works (DPW) is responsible for maintenance of all county-owned SWM BMPs. The County is currently responsible for all maintenance and repairs of the 175 county-owned SWM BMPs. SWM maintenance crews continued to implement a tree planting program within existing dry detention ponds. The purpose of the pilot program is to evaluate the effectiveness of planting trees on cut-slopes thereby reducing man-hours and materials used in SWM BMP maintenance.

Washington County remains vigilant in its efforts to protect ground water through remediation of sinkholes on publicly owned property as soon as possible after formation. Karst/Sinkhole activity in constructed SWM facilities is a major problem in Washington County as these facilities are designed to concentrate stormwater runoff.

## 6.0 Pollution Prevention and Good Housekeeping

### Program Description

Washington County is required to implement and maintain pollution prevention and good housekeeping techniques and procedures to reduce pollutants from all municipal operations. Components of this minimum control measure





include ensuring that all municipally owned facilities are properly permitted under the NPDES or other State or federal water pollution control programs. In addition, this stormwater control measure requires the County to develop Stormwater Pollution Prevention Plans (SWPPP) and implement employee training materials to prevent and reduce pollutant discharges to the storm drain system.

## 6.1. BMP: Permit Coverage Under the Maryland General Discharge Permit for Storm Water Associated with Industrial Activities for Applicable Washington County Facilities

Goal: Obtain permit coverage under the Maryland General Discharge Permit for Stormwater Associated with Industrial Activities for applicable Washington County facilities.

### 2017 Progress

On November 1, 2013, the Maryland Department of the Environment (MDE) gave notice that it was reissuing the State/ National Pollution Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Industrial Facilities, Permit No. 12SW (NPDES No. MDR00). This permit replaced the one issued in December 2002, Permit No. 02SW. The effective date of the permit is January 1, 2014 with an expiration date of December 31, 2018. All facilities are currently covered under the 12SW Permit and are not subject to Chesapeake Bay Restoration Requirements. MDE has approved approved NOIs and SWPPPs for all facilities that are required to apply for coverage.

The status of County facilities for which NOIs and SWPPPs have been submitted and approved, for the General Industrial Stormwater Discharge Permit 12SW, are shown in Table 3 (below).

Facility Name	NPDES Permit No.	NOI & SWPPP MDE Approval Date
Hagerstown Regional Airport	12SW0907	09/05/2014
Eastern Section Highway Building	12SW1450	06/09/2014
Southern Section Highway Facility	12SW1466	06/16/2014
Washington County Highway Department	12SW1467	06/16/2014
Western Section Highway Facility	02SW1965	06/03/2014
Washington County Transit Facility	12SW2227	06/03/2014
Washington County Parks & Facilities Maintenance Facility (Doubs Woods)	12SW2275	06/18/2014
Washington County Forty West Municipal Landfill	02SW1396	04/09/2015
Washington County City/County Landfill	12SW1820	10/06/2017
Washington County Rubble Landfill	02SW0439	04/09/2015
Washington County Hancock Landfill	12SW1294	09/05/2014
Washington County Resh Road II Landfill	12SW1295	09/05/2014

(Table 3: Status of County Facilities with NOIs and SWPPPs)

## 6.2 Good Housekeeping

The Washington County Highway Department removed and disposed of approximately 400 tons of debris/trash that was swept and collected from county roadways. 86 deer carcasses were picked up from county roads and disposed of at a local pet crematory.

The Washington County Parks and Facilities Department provides trash receptacles at all County parks. The total trash and debris collected and disposed of in 2017 amounted to 95.95 tons, which includes pet waste from the pet waste stations.



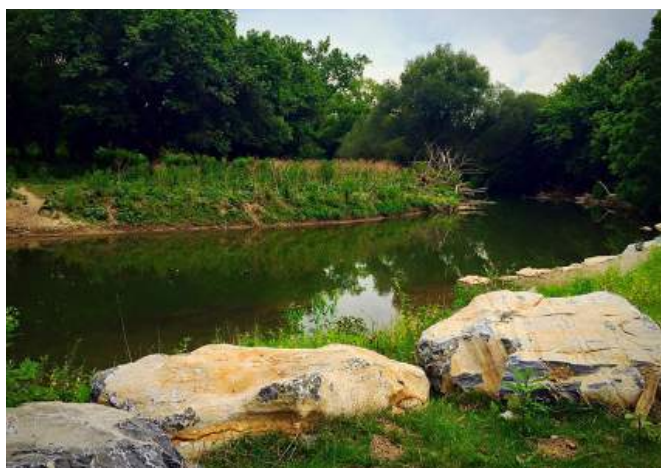
The Parks and Facilities Department continues to maintain 20 existing pet waste stations as part of the partnership between Washington County and PetSmart, for use by patrons of 11 County parks.

Washington County, in its effort to eliminate the use of herbicides, continues to utilize five, State of Maryland inmate crews to maintain roadside weed growth by mowing and weed-whacking on a regular basis. If a situation occurs where an herbicide is applied, it is accomplished by a Maryland Department of Agriculture certified applicator. Washington County also utilizes the inmate crews to remove trash and debris from drainage conveyance channels, roadside ditches and stormwater swales in an effort to reduce pollution of the area's waterways.

In order to comply with the training requirement associated with the county's General Permit for Discharges from Stormwater Associated with Industrial Activities Permit No. 12-SW, 14 staff members attended the webcast titled "Good Housekeeping and Municipal Pollution Prevention," presented on November 16, 2017 by the Center for Watershed Protection.

## 6.3 Watershed Restoration Plans

The Washington County Division of Environmental Management worked in partnership with the WCSCD in completing and receiving approval from MDE on the Antietam Creek Watershed Restoration Plan in 2012.



Kiwanis Park Put-in

The WCSCD is the implementer/reporter for the Antietam Creek Watershed Restoration Plan approved by the EPA in 2012. Each year, WCSCD and watershed partners report progress in achieving the sediment and bacteria goals set by the plan. The report for State Fiscal Year 2017 is currently under development by MDE and when complete it will be available upon request. The Annual Report, Maryland 319 Nonpoint Source Program, State Fiscal Year 2016, has been finalized and is available upon request.

The watershed restoration plan stresses implementation of agricultural BMP's such as cover crops and manure storage facilities, as well as preparation of Soil Conservation and Water Quality Plans for farm operations.

Another major component of the plan, is implementation of stream restoration projects to reduce stream bank erosion. WCSCD is in the planning stages for stream restoration projects on Beaver Creek and Little Antietam Creek. During 2017, WCSCD issued a Request for Proposals to partner with a private design/build firm with experience in grant writing, design and construction for stream restoration and wetland projects. It is expected that a firm will be selected to partner with in February 2018.

WCSCD applied for and was approved for CWA 319(h) funding to complete Phase II of an agricultural project located on Little Grove Creek during 2017. Phase I was implemented during 2017 and includes, stream fencing to exclude dairy cattle from the stream, planting of a riparian forest buffer and installation of alternative watering sources for the cattle. Phase II consists of installation of a Best Available Technology (BAT) septic system for the farm headquarters and a barnyard runoff project. The BAT system was completed in 2017. The barnyard runoff project design and bidding for construction is complete. Additional funding is being requested to complete the project during 2018. The grant includes funding for the design of Phase III of the project, which will address the remaining nonpoint sources at the farm.

The educational component of the Watershed Restoration Plan requires installation of informational kiosks at ten locations in the watershed. The County and partners will continue to work towards the restoration plan goal of installing ten educational kiosks along the Antietam Creek. To date, five kiosks have been installed at locations on the main stem of Antietam Creek. During 2017, the fifth kiosk was installed at a stream access point "Molly's Hole" located at the Antietam National Battlefield.



## Part VI. Verification

---

We submit this report as verification that Washington County continues to implement the requirements of the NPDES Phase II program to the maximum extent possible. Every attempt is made to ensure that we have provided an accurate accounting of the accomplishments made in 2017.

## Part VII. Going Forward

---

Moving forward, Washington County will continue to work on the goals contained herein and explore new methods of meeting and expanding the programs to further its efforts towards the NPDES minimum control measures.

On July 27, 2017, Washington County Division of Environmental Management hosted an informal meeting with all MS4s in Washington County. In attendance were staff from MDE's Soil Sediment, Stormwater and Dam Safety Program and representatives of Town of Boonsboro, Town of Williamsport, City of Hagerstown and Washington County. The meeting was an informative meeting to discuss the pending re-issue of the NPDES Permit and collaboration among all of the MS4s. The Division of Environmental Management intends to host additional meetings and possible workshops in the future to maintain a cooperative group effort to meet the requirements of the NPDES Permit as well as the protection of our waterways.

Washington County, under the direction of the County Administrator, is now working on a new initiative to form a "Clean County" program. In an effort to help reduce pollutant and sediment loads to our streams, the County is currently developing a street sweeping and inlet cleaning program. It is the County Administrator's goal to have the program up and running in fiscal year 2019.

All of this is possible because Washington County has and will continue to remain focused on the environment. It is one of the E3 initiatives which are Economic Development, the Environment and Emergency Services. This commitment provides the opportunity for staff and citizens to move forward on Stormwater Management initiatives and improving the environment in Washington County.



# Attachments







# Maryland

## Department of the Environment

Larry Hogan  
Governor

Boyd Rutherford  
Lieutenant Governor

Ben Crumbles  
Secretary

September 14, 2017

Mr. Scott Hobbs, Director of Engineering  
Division of Engineering & Construction Management  
Washington County Administrative Annex  
80 West Baltimore Street  
Hagerstown, MD 21740

Dear Mr. Hobbs:

The Maryland Department of the Environment, Water and Science Administration (MDE/WSA) has completed a triennial review of Washington County's stormwater management (SWM) program. MDE's review on June 6, 2017 included interviewing County staff, evaluating recently approved site plans, and accompanying field personnel on construction and maintenance inspections of best management practices (BMPs) at six sites. We thank you and your staff for their assistance during the review. Please find attached MDE's assessment and recommendations.

MDE commends the County for working to make changes to its stormwater management program to protect local water quality and aid Maryland's effort in restoring Chesapeake Bay. While a majority of the County's program is being performed adequately, there are several items that MDE would like to bring to your immediate attention for resolution. These include the following:

- The County needs to ensure that stormwater management is addressed properly for all projects where required. This includes addressing changes in how runoff flows onto or off of adjacent properties and ensuring that the developer has obtained from adjacent property owners any easements or other necessary property interests concerning flowage of water.
- Individual construction details of practices and/or individual components (e.g., curb cuts, underdrains, clean outs) that reflect the proposed designs should be provided on approved SWM plans. The County needs to ensure that approved plans have sufficient detail for construction of individual practices and that these details accurately depict those practices or individual components.
- The County is strongly encouraged to monitor inspection reports from 3<sup>rd</sup> party inspection services to ensure that the level and quality of data submitted is consistent with County and professional engineering reporting standards. The County may wish to generate a list of minimum items and standards for guidance to ensure inspection consultants provide a product that meets a minimum standard of content and detail.

**RECEIVED**

**SEP 18 2017**

- MDE strongly encourages the County to make effective use of digital imagery to document critical new construction points as well as maintenance inspections. Effective context and detail photographs will help BMP owners become more familiar with the BMPs they are responsible for and provide better guidance for maintenance and repair personnel.

MDE shall re-evaluate these three program elements in the next review. In the interim, please keep us informed of the County's progress in these efforts. MDE appreciates the County's attention and commitment to this important environmental program. If you have any questions, please contact me at [stewart.comstock@maryland.gov](mailto:stewart.comstock@maryland.gov) or Pat Depkin at [pat.depkin@maryland.gov](mailto:pat.depkin@maryland.gov), or (410) 537-3628.

Sincerely,



Stewart R. Comstock, P.E.  
Senior Regulatory and Compliance Engineer  
Sediment, Stormwater, and Dam Safety Program

Attachment

cc: **Mr. John Swauger**  
Division of Environmental Management, Stormwater Management Program

**Attachment 1**  
**Maryland Department of the Environment's Review**  
**Of Washington County's Stormwater Management Program**

Program Element	Assessment and Recommendations
Administration	<ul style="list-style-type: none"> <li>• Maryland Department of the Environment's (MDE) review of Washington County's stormwater management (SWM) program included interviewing County staff, evaluating recently approved site plans, and accompanying staff on construction and maintenance inspections of best management practices (BMPs).</li> <li>• The previous review, which was conducted in 1994, found the County's SWM program to be acceptable. More recently, the County's construction and maintenance inspection program was evaluated in May 2006, and informal, information gathering visits were conducted in November 2011 and April 2013.</li> <li>• The County's stormwater management program is administered by the Division of Engineering, Division of Construction, Division of Plan Review and Permitting (PRP) and the Division of Environmental Management (DEM). The County currently has four full-time employees responsible for plan review and three full-time employees for inspections.</li> <li>• The County provides checklists to developers prior to plan submittal, which improves plan quality. The County stated that it has a good working relationship with the engineering community.</li> <li>• PRP coordinates the review of plans by all County agencies.</li> <li>• The Washington Soil Conservation District (SCD) is copied on County correspondence.</li> <li>• For private development, 3<sup>rd</sup> party inspection and documentation is required. County personnel also inspect critical items during construction.</li> <li>• As-built inspections must be certified by the designer and approved by the County. A construction inspection checklist is included on the plans and is reviewed by the County as part of the approval process.</li> <li>• The Division of Construction is responsible for maintenance inspections of all private and County stormwater management BMPs. The Division has three inspectors.</li> <li>• Typically, the County is responsible for the maintenance of County facilities, and site owners are responsible for maintaining privately owned facilities.</li> <li>• The County administers the stormwater management programs in the unincorporated areas of the County. The City of Hagerstown maintains its own program.</li> </ul>
Ordinance	<ul style="list-style-type: none"> <li>• Washington County was required to adopt a revised stormwater management ordinance by May 4, 2010 in response to MDE's 2009 regulation update for incorporating environmental site design (ESD) to the maximum extent practicable (MEP) into the State's program.</li> <li>• The County Ordinance 2010-18 was approved by MDE on October 19, 2010 and adopted locally on November 30, 2010.</li> </ul>

**Attachment 1**  
**Maryland Department of the Environment's Review**  
**Of Washington County's Stormwater Management Program**

Program Element	Assessment and Recommendations
Policy	<ul style="list-style-type: none"> <li>• Washington County has implemented a standard plan for single lot residential construction projects.</li> <li>• The County has also implemented a standard stormwater management plan for agricultural structures. The standard plan applies to land disturbances exceeding 5,000 square feet but less than 43,560 square feet that do not propose a small pond. Agricultural projects that do not meet these criteria must submit a grading plan to the County.</li> </ul>
Plan Review	<ul style="list-style-type: none"> <li>• Washington County uses the 3-step plan review process (i.e., concept, site development, and final plans). Qualifying residential projects may use the standard plans.</li> <li>• If initial plans are detailed enough and ESD to the MEP is met for the project, then the plan review steps may be combined.</li> <li>• Checklists are required for each plan review step. The plan review process cannot advance to the next step until all materials have been submitted and approved.</li> <li>• There has been a turnover in the County's plan review staff in the last year. Instead of reviewing the previous staff's work, MDE conducted training with the current staff. During the training session, MDE discussed several items that should be implemented to ensure compliance with State SWM requirements. These are as follows: <ul style="list-style-type: none"> <li>○ The County needs to ensure that ESD is implemented to the MEP for all new development projects. The performance standards for using ESD are found in Chapter 5 of the 2000 Maryland Stormwater Design Manual (the "Manual," MDE, 2000 &amp; 2009). For new development applications, ESD shall be used to address both the groundwater recharge volume (<math>Re_v</math>) and water quality volume (<math>WQ_v</math>) requirements (see p.5.17). Also, ESD practices shall be used to treat the runoff from one inch of rainfall. These are mandatory requirements that must be addressed.</li> <li>○ The Code of Maryland Regulations (COMAR) requires that final SWM plans be submitted to Washington County in the form of construction drawings [see COMAR §26.17.02.09(4)(b)]. Likewise, State law requires that the developer certify that all land clearing, construction, development, and drainage will be done according to the SWM plans [see the Environment Article §4-204(b)]. In this manner, the approved plans are the official record of the design and must have sufficient detail and accurately depict the construction of the individual practices that comprise the SWM system.</li> </ul> </li> </ul> <p>COMAR and the Washington County ordinance include a list of items</p>

**Attachment 1**  
**Maryland Department of the Environment's Review**  
**Of Washington County's Stormwater Management Program**

Program Element	Assessment and Recommendations
Plan Review	<p>that must be submitted with final SWM plans. Some of the required items are structural and construction details for all components of the proposed SWM system, all necessary construction specifications, and any other information required by the County [see COMAR §26.17.02.09(6)]. As the local approval authority, the County is responsible for ensuring that all required elements are included on the final SWM plans and that the constructed SWM system reflects those plans. Any deviations from the approved construction drawings must be approved by the County.</p> <ul style="list-style-type: none"> <li>• In March 2017, MDE notified the County of violations and critical plan deficiencies related to the Clearview Acres development. The County needs to ensure that stormwater management is addressed properly for all projects where required. This includes addressing changes in how runoff flows onto or off of adjacent properties and ensuring that the developer has obtained from adjacent property owners any easements or other necessary property interests concerning flowage of water.</li> </ul>
Construction Inspection & Enforcement	<ul style="list-style-type: none"> <li>• Washington County's Division of Construction is responsible for as-built inspections and approvals once a project's designer provides them with an as-built package documenting what was built and the inspections that occurred during the critical stages of construction.</li> <li>• The County requires that developers post a bond for all stormwater management construction. To set a bond, the County obtains an estimate of the construction costs from the design engineer to include all sediment and erosion control as well as grading costs, and adds a 15% administrative fee to the total.</li> <li>• Typically, the complete amount of the bond is released upon acceptance of the as-built package submitted by the certifying engineer as well as a site inspection to verify site is stable and complete.</li> <li>• Noncompliance can result in a notice of violation, bond forfeiture, and ultimately, litigation.</li> <li>• For Washington County projects, the County staff conducts the stormwater management inspections using a checklist for critical phases of construction. Additional parties involved include a consultant engineer or geotechnical professional.</li> <li>• The County SWM ordinance contains clear and concise descriptions of the data required by the certifying engineer. MDE was unable to determine if these requirements are being fully addressed, and recommends that the County make sure all data required is submitted. It may be useful to provide an example as-built submittal to any engineer undertaking a project within the County.</li> <li>• MDE, in coordination with County staff, visited multiple commercial and</li> </ul>



**Attachment 1**  
**Maryland Department of the Environment's Review**  
**Of Washington County's Stormwater Management Program**

Program Element	Assessment and Recommendations
Construction Inspection & Enforcement	<p>residential sites under construction throughout the County, including the Sycamore Run subdivision and the Custom Landscaping site.</p> <ul style="list-style-type: none"> <li>• The Sycamore Run subdivision is a single family home community under construction in the Town of Boonsboro. Construction inspections are performed by Washington County as well as 3<sup>rd</sup> party engineering firms and turned over to the City of Boonsboro for acceptance. Stormwater management is provided by a series of micro-bioretention facilities throughout the subdivision.</li> <li>• MDE noted that facility #14 was holding water and showed evidence of water overtopping the fill embankment and causing heavy erosion of the embankment. Review of provided plans and construction inspection logs by the 3<sup>rd</sup> party engineer have introduced more questions regarding the level and quality of the construction inspection, as well as the intended design performance. There is ongoing discussion between MDE, Washington County, and the City of Boonsboro regarding the management and oversight of this project. Observations of other portions of the site compared to the design plans available at the site have also lead to further questions and discussions which have not been resolved as of this writing.</li> <li>• MDE recommends that the County review the 3<sup>rd</sup> party submissions frequently to ensure that the project is being effectively and completely documented in a manner consistent with professional engineering standards. County plan review and construction inspection staff is encouraged to review this project for examples of practices and designs to be avoided on future projects.</li> <li>• The stormwater management for the Custom Landscaping site consisted of two very recently installed surface sand filters and a retention basin. These facilities were in good condition and appeared to be operating as intended. They also appeared to be well protected from sediment intrusion from the excavation work proceeding nearby.</li> </ul>
Maintenance Inspection & Enforcement	<ul style="list-style-type: none"> <li>• Washington County conducts stormwater management maintenance inspections for all facilities except those owned by the State or federal government.</li> <li>• The County's stormwater inspectors and plan reviewers are assigned to different departments within the County government. MDE strongly encourages communication and feedback between the construction/maintenance inspection personnel and the plan review shop. Plan review staff should brief the inspection staff on any new or atypical designs, and inspection staff should provide plan review staff with usable feedback on performance or maintenance issues encountered after facilities are on-line.</li> <li>• MDE, together with the County, inspected several residential and commercial sites including Loves Truck Stop, Paradise Manor and the</li> </ul>

**Attachment 1**  
**Maryland Department of the Environment's Review**  
**Of Washington County's Stormwater Management Program**

Program Element	Assessment and Recommendations
Maintenance Inspection & Enforcement	<p>Frances Murphy Apartment complex.</p> <ul style="list-style-type: none"> <li>• As-built approval letters were not always included in the files.</li> <li>• Washington County uses an electronic smart phone app to perform inspections. The app contains a generic checklist as well as provision for inspector notes and photographs.</li> <li>• The reviewed files appeared to be up to date and in compliance with the State's inspection frequency requirements.</li> <li>• When BMP maintenance problems were encountered, photographic documentation is used to record and identify the issues.</li> <li>• Maintenance violations are handled as follows: The County's policy stipulates that property owners have 90 days to generate a plan to correct maintenance deficiencies, and repairs must be performed within 150 days. If repairs have not been completed by the 150 day mark, the County may undertake repairs to bring the facility into proper operational condition, and collect the cost for these repairs from the owner.</li> <li>• In general, the BMPs inspected were adequately built; however, several maintenance items documented by MDE should be corrected as part of the County's ongoing maintenance inspection and enforcement program.</li> <li>• SWM for the Loves Truck Stop consists of a single bioretention basin, three detention basins, a CMP underground detention BMP, and a proprietary StormFilter cartridge water quality treatment BMP.</li> <li>• Generally, the facilities were in good condition at the time of inspection. Some grass on facility slopes was higher than turf height, but did not impede the inspection process. Neither MDE nor the County representatives were equipped to perform a confined space entry to inspect the cartridge chamber or underground detention pipes. MDE recommends that the County develop a standard protocol to ensure that underground facilities are thoroughly inspected and documented every three years. MDE also recommends that for any BMP approved by the County that has a replaceable cartridge or other life-limited component, the County insist on a maintenance agreement that binds the facility owner to the manufacturer's recommended maintenance schedule. It also appears that due to the configuration of the filter vault, maintenance access is extremely limited. This is a good example of why plan review staff and field staff should exchange information.</li> <li>• Paradise Manor is a residential subdivision that uses a dry detention basin with a forebay to provide quality and quantity management. The facility utilizes a weir wall control structure within the fill embankment to control release of stormwater. The facility looked to be in good shape at the time of inspection, with some minor bare soil areas to be addressed within the basin.</li> <li>• MDE and County staff noted that several groundhog traps were in place on</li> </ul>

**Attachment 1**  
**Maryland Department of the Environment's Review**  
**Of Washington County's Stormwater Management Program**

Program Element	Assessment and Recommendations
Maintenance Inspection & Enforcement	<p>adjacent properties. County staff is reminded to be vigilant in looking for and identifying groundhog or other burrowing animal activity within the basin generally and along the fill embankment at the weir wall specifically, as this is a preferred location for burrowing animals.</p> <ul style="list-style-type: none"> <li>• At the Frances Murphy Apartment complex, a detention basin was observed that has been problematic due to a recurring sinkhole in the basin floor. The County indicated that this particular property owner has been difficult to establish contact with, but the County is continuing with the effort. This may be a scenario where the County must eventually perform the repair and seek compensation from the owner after the fact. Currently, the sinkhole is fenced off and noted as a hazard to be avoided.</li> <li>• MDE requests that the County develop standard operating procedures for entering underground facilities as part of a routine BMP inspection program. These BMPs cannot be effectively evaluated from the surface without specialized equipment and confined space certification, and in many cases must be entered to fully document the condition and performance of the facility. The SOP may be as simple as requiring owners of these facilities to retain the services of a 3<sup>rd</sup> party inspection service and forwarding the report to the County on a fixed schedule.</li> <li>• MDE also recommends that the County consider providing outreach to stormwater management facility owners regarding BMP operation and maintenance. Important topics that could be shared with property owners and landscaping contractors include above ground care, e.g., mowing, brush removal, vermin eradication, trash control, and responsibilities for inspecting and maintaining underground facilities. Maintaining and caring for these BMPs will reduce long term costs to the property owners and the County.</li> </ul>





# LIVE WORK PLAY



Stormwater Management  
16232 Elliott Parkway  
Williamsport, MD 21795  
P: 240.313.2611 | F: 240.313.2601

[www2.washco-md.net/DEM/swm/index.shtm](http://www2.washco-md.net/DEM/swm/index.shtm)