

## 8.0 Permit Requirements

### Permit Conditions

#### **D. Management Programs**

##### 6. Public Education

Baltimore County shall continue to implement a public education and outreach program to reduce stormwater pollutants. Outreach efforts may be integrated with other aspects of the County's activities. These efforts are to be documented and summarized in each annual report. The County shall continue to implement a public outreach and education campaign with the specific performance goals and deadlines to:

- a. Maintain a compliance hotline or similar mechanism for public reporting of water quality complaints, including suspected illicit discharges, illegal dumping, and spills.
- b. Provide information to inform the general public about the benefits of:
  - i. Increasing water conservation;
  - ii. Residential and community stormwater management implementation and facility maintenance;
  - iii. Proper erosion and sediment control practices;
  - iv. Increasing proper disposal of household hazardous waste;
  - v. Improving lawn care and landscape management (e.g., the proper use of herbicides, pesticides, and fertilizers, ice control and snow removal, cash for clippers, etc.);
  - vi. Residential car care and washing; and
  - vii. Proper pet waste management.
- c. Provide information regarding the following water quality issues to the regulated community when requested:
  - i. NPDES permitting requirements;
  - ii. Pollution prevention plan development;
  - iii. Proper housekeeping; and
  - iv. Spill prevention and response.

#### **8.1 Introduction**

Baltimore County continues to view environmental education, outreach, action, and stewardship through community partnerships as a high priority in its suite of services to citizens, particularly in an effort to reduce stormwater pollutants and address the Municipal Separate Storm Sewer System (MS4) permit requirements. The County's integrated watershed approach to resource

management and its intention to work with and support local citizens and watershed organizations offers opportunities for effective community partnerships. These involve a broad constituency of citizens, families, schools, organizations, faith communities, and businesses.

To continue our mission of community involvement, the Department of Environmental Protection and Sustainability (EPS) completed the review, interview process, and selection of a firm for Education & Outreach consulting. This effort is meant to acquire services of a professional team with the ability to develop and pilot a concentrated campaign to implement and assess public education and behavioral change.

This 2016 Annual Report covers the fiscal year of July 1, 2015 to June 30, 2016 for reporting. The purpose of the fiscal year reporting is to dovetail with the milestone requirements of the Chesapeake Bay TMDL, now in effect.

### **8.2 Public Reporting of Water Quality Complaints**

EPS has an online form to “report pollution” of illegal connections to and/or dumping into the storm drain system. The online form to report pollution can be found at [www.baltimorecountymd.gov/Agencies/environment/reportpollution.html](http://www.baltimorecountymd.gov/Agencies/environment/reportpollution.html) as well as an email link to the Watershed section. In FY16, five complaints were logged using the form, and eleven came in through the Watershed email. The reporting page also explains the difference between an emergency and a concern (non-emergency), giving phone numbers for those agencies that provide a 24-hour service line. Instances that are not an emergency will be investigated by staff of EPS Watershed Monitoring within 48-business hours. A door hanger became available for staff use in FY14 to inform citizens that pollutants have been found in the local storm drain, as well as, informing the resident that substances put into the storm drain system flow into the nearby stream and then to the Chesapeake Bay. A full description of the Illicit Discharge Detection & Elimination program is found in Section 5.

Chemical spills can pose a public health threat as well as an environmental risk. These events are considered an emergency situation and are handled by MDE Emergency Response Division.

### **8.3 Public Outreach and Education**

Many county departments and agencies continue efforts to inform the public and student population about various aspects of environmental education and practices, community activities and individual resident activities. Since 1994, Baltimore County has carried its message in over 18,000 environmental presentations, outreach events and a variety of media outlets. In FY2016, the County sponsored a variety of outreach events including informational displays, business events, neighborhood and stakeholder meetings, and interactive events for citizens and families, reaching over 3,000 people.

The majority of the audiences were located at county-wide events, the result of several large events (e.g. watershed appreciation days) and the E-News Stream newsletter. Presentations were made to a wide variety of groups. Table 8-1 reports presentation events by type of audience.

**Table 8-1: Education Presentations, Distributions and Events by Type of Audience\*, FY2016**

Type of Group/Audience	# Interactions/events for each audience
Citizens, Community Groups or Associations	70
Environmental Career Education	1 event (80 students)
Government Agency, Facility, Group	200
EPS Lobby, Duty Room	2,600
Festivals	240
Cable TV/County blog/E-News Stream	~3,500
Flyers/Doorhangers	87

\*Notes: Career education includes school career fairs and internship opportunities. Access to lobby displays is estimated to be approximately 10 people/day for 50 weeks (250 days). Some presentations and events addressed audiences that included several of the groups listed above and thus were entered in more than one category. Where appropriate, audience size is estimated (e.g. Cable TV viewership).

Much of the support material is available on many of the county web pages, or in hard copy by request. It is recognized that in order for any public outreach and education program to be successful, public stewardship is essential for the program to maintain its effectiveness. Specific strategies to effectively reach and engage the public, performance goals and deadlines shall continue to be implemented.

### 8.3.1 Outreach

EPS continues to provide information to the public on a variety of topics. Fact sheets are available in the office lobby and online. Online links to sister agencies, organizations, and additional publications are also provided on the EPS webpage. The outreach efforts described in previous NPDES Annual Reports continue to be implemented.

#### 8.3.1.1 Water conservation

The Baltimore County Public Works - Bureau of Utilities offers tips on their web pages regarding water issues and water conservation. These websites are:  
<http://www.baltimorecountymd.gov/Agencies/publicworks/utilities/waterissues.html> and  
<http://www.baltimorecountymd.gov/Agencies/publicworks/utilities/waterconserv.html>

#### 8.3.1.2 Residential and community stormwater management

The Rain Barrel sale held annually in spring of the year is announced on several of the county media sites. FY2016's event distributed 331 barrels to Baltimore County addresses. The Sustainability Resources for Residents web page offers guidance about rain barrels, green and renewable power in Maryland, electricity use, home energy audit, green-cleaning around the home, fertilizer use and application and many other topics:  
<http://www.baltimorecountymd.gov/Agencies/environment/sustainability/residents.html>

#### 8.3.1.3 Erosion and sediment control practices

The EPS Environment at Home web page found at  
<http://www.baltimorecountymd.gov/Agencies/environment/education/house.html> provides a link to the Maryland Department of Agriculture – Education and Homeowner Tips brochure titled

“Backyard Actions for a Cleaner Chesapeake Bay” found at [http://mda.maryland.gov/resource\\_conservation/Documents/backyard.pdf](http://mda.maryland.gov/resource_conservation/Documents/backyard.pdf).

#### 8.3.1.4 Household hazardous waste disposal

This program was developed to educate residents regarding the environmental and human health threat imposed by the improper disposal of chemicals that are stored in a home and to provide for proper disposal. Baltimore County citizens can drop off household hazardous waste (HHW) materials for recycling or proper disposal at a permanent processing facility located at the Eastern Sanitary Landfill Solid Waste Management Facility from April 1 - November 30 each year. Materials dropped off for processing include: unwanted household chemicals, paint, flammable cleaning solvents, automotive fluids, pesticides, pool chemicals, acids, mercury thermometers, gasoline, corrosive material, etc. In addition, EPS holds two (2) one-day collection events annually, in the spring and fall, at different locations around Baltimore County. Event dates and details can be found at:

<http://www.baltimorecountymd.gov/Agencies/environment/groundwatermgmt/hazwaste.html>

Details on materials collected is located in Section 7.

#### 8.3.1.5 Greening Baltimore County operations

The County continues to expand its efforts to reduce waste, encourage recycling, and decrease costs for operations via several programs. The following website highlights and details those efforts:

<http://www.baltimorecountymd.gov/Agencies/environment/sustainability/countyactions.html>.

The county’s Forest Sustainability Program provides information about the county’s Big Trees Sale, Tree-Mendous Maryland, forest workshops and forums and multiple other forest topics at <http://www.baltimorecountymd.gov/Agencies/environment/forestsandtrees/index.html>. The Increased tree planting efforts on county owned property are being guided by EPS with participation of many county departments. Efforts include establishing urban and rural reforestation and buffers, as well as single-tree planting. *The Policy and Guidelines for Community Tree Planting Projects*, found online through the forest and trees web page noted above, helps to ensure that planting projects are designed, installed, and maintained for long-term success and tree health. These guidelines will help assure that the county can address its obligations for reforestation on all land owned by Baltimore County.

#### 8.3.1.6 Conservation landscaping

Citizens and communities that wish to reduce pollution and enhance their properties will find several informative guidance brochures at this website:

<http://www.baltimorecountymd.gov/Agencies/environment/education/house.html>

#### 8.3.1.7 Residential car care and washing

Following a few simple steps and tips can protect the water quality in nearby streams and reduce water consumption. Visit the MDE website at:

[http://www.mde.maryland.gov/programs/water/waterconservation/pages/programs/waterprograms/water\\_conservation/household\\_tips/carwashing.aspx](http://www.mde.maryland.gov/programs/water/waterconservation/pages/programs/waterprograms/water_conservation/household_tips/carwashing.aspx)

#### 8.3.1.8 Composting

This website gives how-to information about composting yard materials as well as food scraps. It also includes the proper technique to grasscycle and leafcycle at:

<http://www.baltimorecountymd.gov/Agencies/publicworks/recycling/composting/index.html>

#### 8.3.1.9 Re-use and recycle

The first web link details such topics as the single stream recycling, electronics recycling, managing organic materials, waste prevention, publications and downloads, and the county's Ten Year Solid Waste Management Plan. The second link is an interactive monitoring site allowing viewers to observe the amounts of recycled items within neighborhoods of the county. This site was activated in spring 2012:

<http://www.baltimorecountymd.gov/agencies/publicworks/recycling/> and <http://bcrecycles.com/>

#### 8.3.1.10 Proper pet waste management

A fact sheet about pet waste and water quality is displayed in the lobby of EPS. This fact sheet is also used at events/festivals regularly.

#### 8.3.1.11 Additional media

Baltimore County Now is the newly established blog to communicate county events and information. All county departments are encouraged to contribute pieces. These may include events, observations, tips, ideas, technical information, etc. Find Baltimore County Now at:

<http://www.baltimorecountymd.gov/News/BaltimoreCountyNow>

The Big Trees Program features major deciduous trees native to Maryland. The sale of young trees is held in the spring and fall of the calendar year for planting on private residential properties. Additional information regarding The Big Trees Program can be found at:

<http://www.baltimorecountymd.gov/Agencies/environment/forestsandtrees/bigtrees.html>.

### 8.3.2 *Education*

As of 2011 the Maryland State Board of Education requires high school graduates to be environmentally literate per the Maryland Environmental Literacy Standards. Each local school system can shape its own program, but it must align with the MEL Curriculum Standards, which consists of eight state standards. As a resource, Maryland Green Schools provide examples of lessons that combine environmental learning with the Science, Technology, Engineering and Math (STEM) education. Since the loss of the EPS outreach and education position, Maryland Green Schools coordination is now referred to Maryland Association for Environmental and Outdoor Education (MAEOE) as of spring 2012.

Promotion and support for stewardship projects: include conservation landscaping principles, planting trees, stream clean-ups, impervious reduction, rain barrels, rain gardens and residential water audits.

Community and agency partnerships: Local watershed associations, partially funded by county grants, partner with EPS to implement pollution reduction initiatives outlined by the county's Small Watershed Action Plans (SWAPs), and Total Maximum Daily Load (TMDL) goals. These goals include educational components which are meant to build awareness about issues of pollution and extend the reach of our message of stewardship into the local communities. Some

activities taken on by the watershed associations include Adopt-a-Stream, Stream Watch, Project Clean Stream, downspout disconnections, rain barrel and rain garden sales and installations, native plant sales, tree plantings, invasive plant removal, and storm drain marking. Through outreach networks, festivals, events, sales, workshops, and websites, the watershed groups address trash and litter issues, conservation landscaping techniques, watershed restoration and preservation (including stormwater management), and the importance of reporting sewage spills/overflows and other evidence of waterway pollution. Each quarter the watershed organizations submit a report to EPS that includes events, dates and number of participants for educational activities. Increasingly, county agencies cooperate to expand awareness of programs and services to citizens.

**Table 8-2 Watershed Group Events and Participation, FY2016**

<b>Group Name</b>	<b># of Events</b>	<b># of Participants</b>
Back River Restoration Committee (BRRC)	47	2,548
Blue Water Baltimore (BWB)	21	758
Dundalk Renaissance Corporation (DRC)	30	703
Gunpowder Valley Conservancy (GVC)	61	843
Patapsco Heritage Greenway (PHG)	12	159
Prettyboy Watershed Alliance (PWA)	10	472
<b>Totals</b>	<b>181</b>	<b>5,483</b>

**8.4 Information Regarding Water Quality Issues to the Regulated Community**

*8.4.1 NPDES Permitting Requirements*

Upon request, EPS provides explanation and materials to public and private entities about NPDES permitting requirements. EPS shares fact sheets, templates, and other resources to help the regulated community comply. An NPDES Resources web page was created to benefit the NPDES Management Committee as well as the community. This can be found at:

<http://www.baltimorecountymd.gov/Agencies/environment/npdes/npdesresources.html>

See Section 7 for details on the status of compliance with the NPDES - MS4 (Municipal Separate Storm Sewer System) requirements for Baltimore County agencies.

*8.4.2 Pollution Prevention Plan Development*

EPS meets with department representatives and offers assistance to those entities required to prepare a SWPPP for a Maryland General Permit for Discharges from Stormwater Associated with Industrial Activities on an as-needed basis. See MDE’s website for details of the permit, which became effective on January 1, 2014, and related resources.

[http://www.mde.state.md.us/programs/Permits/WaterManagementPermits/WaterDischargePermitApplications/Pages/Permits/watermanagementpermits/water\\_applications/stormwater.aspx](http://www.mde.state.md.us/programs/Permits/WaterManagementPermits/WaterDischargePermitApplications/Pages/Permits/watermanagementpermits/water_applications/stormwater.aspx)

#### 8.4.3 *Proper Housekeeping*

Proper, or good, housekeeping establishes control measures for actions to reduce the potential for water pollution for MS4 entities. Actions include covering materials in secure containers, prompt cleanup of spilled materials, covering storm drains temporarily to reduce the chance of material from getting into it, etc. Record keeping of inspections, maintenance, spills, and staff training is essential for audit purposes.

#### 8.4.4 *Spill prevention and response*

An NPDES – MS4 regulated entity must have a spill prevention plan. Most facilities will already have preventative maintenance programs (PMP) which should also include regular inspection of containers, as well as, spill prevention and response procedures. See link above to the permit for more information.

### **8.5 Continuing public outreach related to TMDL Implementation Plans and Trash & Litter Reduction Strategy**

Throughout CY2014 Baltimore County developed a county-wide Trash & Litter Reduction Strategy (TLRS), as well as Implementation Plans for 22 local water quality impairments. Work on TMDL Implementation Plans for trash in the Gwynns and Jones Falls continued into this reporting year. As part of all Implementation Plans, continuing public outreach will be used to engage the general population in the implementation and restorative process. Since the short timeframe between submittal of the plans and the ending of the fiscal year, there has been plenty of planning and advancement towards certain goals detailed in last year's documents.

#### 8.5.1 *NPDES Management Committee*

The NPDES Management Committee is composed of representative agencies that are involved in meeting the NPDES – MS4 Permit requirements. This committee has met irregularly in the past, generally to review information on permit requirements and other upcoming regulatory requirements, such as, the General Industrial Stormwater Discharge Permit. These meetings will be useful platforms to coordinating public outreach and education messages which may benefit from consistent messaging. Additional information regarding the NPDES Management Committee responsibilities may be found in Section 1 of this Annual Report.

#### 8.5.2 *Local Watershed Associations*

Baltimore County continues to rely heavily on its partnerships with local not-for-profit environmental organizations to reach many of its goals of education and outreach to the general public. Through the County's *Watershed Association Restoration Planning and Implementation Grants*, funding is provided to these organizations working towards implementation of Total Maximum Daily Load and Small Watershed Action Plan pollution reduction goals. Many of the projects which are undertaken by these groups include public awareness/outreach and education programmatic actions, such as storm drain marking.

#### 8.5.3 *Business Community Outreach*

The Small Watershed Action Plan (SWAP) process includes an upland assessment of potential pollution hotspots. Often, these potential hotspots are commercial or industrial sites. The information derived from this assessment will be used to target outreach and education to businesses specific to the issue(s) at the location identified in each SWAP. These actions will be

tracked and reported in the annual NPDES – MS4 Report. Baltimore County plans on engaging the business community through various business forums, targeted outreach and education efforts on specific topics, and hosting workshops on specific topics as necessary. Outreach to the business community will be a large part of the County’s partnership with education and marketing consultants that we hope to begin during Fiscal Year 2017.

#### *8.5.4 Trash and Litter Reduction Outreach*

The County’s Trash and Litter Reduction Strategy details many plans for us to consider during our outreach and education phase of the strategy. These possibilities may include:

- Development of a local “Trash Treaty”
- Promotion of trash clean-ups as service-learning opportunities
- Improvement of anti-littering/dumping signage
- Support of local not-for-profit’s litter education programs
- Develop a business and/or neighborhood recognition/incentive program for “clean” businesses/neighborhoods

#### *8.5.5 Continuing Public Outreach*

In order to engage the public in the TMDL implementation process each TMDL IP includes a continuing public outreach plan will be implemented upon MDE’s approval of each IP. The outreach plan is applicable to all TMDL Implementation Plans that are currently being developed and those developed in the future, as well as the Trash & Litter Reduction Strategy. The continuing public outreach plan is meant to engage county agencies, environmental groups, the business community, and the general public. Section 11 of each IP contains an outline of the Continuing Public Outreach plan.

The general public will be engaged through a number of mechanisms, including:

- WIP Team meetings
- Targeted outreach and education efforts on specific topics
- Steering Committee and Stakeholder Meetings in the development of Small Watershed Action Plans
- Meetings of the Implementation Committee for completed Small Watershed Action Plans
- Displays at various events
- Annual progress reports posted on the county website and placed in our libraries
- A biennial “State of Our Watersheds” conference

#### *8.5.6 Education and Outreach Consultant*

In addition to other continuing County initiatives, EPS has retained the services of an on-call environmental consulting firm. Our goal is to use this consultant to help build our public education and outreach campaigns, utilizing targeted marketing and other methods. We hope to evaluate these campaigns by measurement of behavioral change in the community. At the time of this document’s writing, the consulting firm has begun collaborating on a scope of work for the initial term of the contract. The contract will focus first on developing a pilot program in the areas of the County which are impacted by the TMDL for Trash (Gwynns and Jones Falls), which may then be expanded to the whole county.

#### 8.5.6.1 Goals for Fiscal Year 2017

- Examining previous campaigns and past planning efforts
- Identifying challenges and pathways to litter and pet-waste outreach
- Identifying local partnerships for progress in these issues
- Develop methodology for pilot outreach program

### **8.6 Summary**

Baltimore County implements its public awareness and education programs to aid in the reduction of stormwater pollutants. The initiatives and programs are multi-faceted, and developed for flexibility so that the message may be easily adapted to a variety of educational settings involving homeowners, community groups, school administration and staff, facility managers, students, watershed coalitions, faith communities, and businesses in various geographic settings around the county and region.

A number of important new components and materials have been developed or enhanced in order to better reach certain target audiences. The County's sustainability initiatives provide recommendations and Green@Work initiatives in the increasing effort to model best practices. Through changes to county operating protocols, employees are engaged in the workplace, and measurable progress is expected. Through local initiatives by individual watershed organizations and special ground maintenance projects for county properties, new emphasis has been placed on institutional landscape design, maintenance, and conservation landscaping concepts such as the benefits of native plants, integrated pest management (IPM), and removal of impervious surfaces. Pet waste, grass clippings, and other sources of nutrients and bacteria in urban and suburban neighborhoods were highlighted at community events. The Clean Green :15 initiative encourages citizens to take 15 minutes and pick up a bag of trash in the neighborhood, athletic field, etc. and report on the web page to help the county meet the Chesapeake Bay restoration goals and improve the community. The Clean Green :15 program recently received national recognition through the National Association of Counties (NACo) – see: [http://www.uscounties.org/cfiles\\_web/awards/program.cfm?SEARCHID=2016envi28](http://www.uscounties.org/cfiles_web/awards/program.cfm?SEARCHID=2016envi28).

Partnerships with other Baltimore County offices and agencies enhance the level of communication, avoid duplication of services, and increase overall effectiveness and efficiency. Supporting materials developed by the department and by outside organizations are available online. Volunteer citizen participation in pollution prevention and environmental stewardship is promoted in all components of the program.