Appendix 5 – Outreach and Stewardship Practice Sheets
January 2012

Public Outreach and Stewardship Practice No. 1
PET WASTE PICK UP OUTREACH AND STEWARDSHIP CAMPAIGN

<table>
<thead>
<tr>
<th>Summary:</th>
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<tbody>
<tr>
<td>Several of the watersheds in Montgomery County are required to reduce bacteria loading. The restoration implementation strategy is geared to target the sources of bacteria. Stormwater management in general only targets overland flow sources of bacteria, such as runoff containing waste from domestic pets, wildlife, and potentially livestock. The Maryland Department of the Environment (MDE) determined the bacteria loading in certain watersheds to be from a distribution of sources including domestic animals, human, livestock, wildlife, and unknown based on bacterial source tracking (BST). Consequently, aggressive outreach on the importance of picking up pet waste has been identified as an important component of the County’s stewardship outreach work plan within its urban areas. It seems the most cost effective way to achieve the intended goals is to adapt content from one of the many effective pet waste education campaigns that has been developed in other portions of the country and disseminate that through a mixture of existing and new county distribution mechanisms.</td>
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<table>
<thead>
<tr>
<th>Key Messages</th>
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<tbody>
<tr>
<td>• Pet waste contains bacteria and excess nutrients which harms our streams and endangers human health</td>
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<tr>
<td>• Rain and snow can carry the pet waste into our streams</td>
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<tr>
<td>• Dogs are not the only pets that produce waste</td>
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<tr>
<td>• Removal is required by county law</td>
</tr>
<tr>
<td>• Picking up after your pet is the law [Chapter 5-203(a)], and the law applies to both dogs and cats. Noncompliance can result in a $100 fine.</td>
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<table>
<thead>
<tr>
<th>Intended Outcome:</th>
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<tbody>
<tr>
<td>Behavior change throughout the county such that individuals find it wrong to leave pet waste unattended and are careful to dispose of pet waste properly, thereby reducing bacteria in streams.</td>
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<table>
<thead>
<tr>
<th>Measures:</th>
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<tr>
<td>• Increase in awareness and self-reporting of improved behavior and users of pet waste disposal stations</td>
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<tr>
<td>• Increase per year in mass of waste in pet waste disposal stations or frequency of cleanouts/emptying.</td>
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<tr>
<td>• Increase in number of requests for pet waste disposal stations.</td>
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<tr>
<td>• Reduction in citations after initial baseline year where enforcement is stepped up.</td>
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<tr>
<td>• Meet water quality bacteria standards based on MDE’s Biennial assessments.</td>
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<table>
<thead>
<tr>
<th>Existing Partnerships to Nurture:</th>
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<tbody>
<tr>
<td>• Homeowners</td>
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<tr>
<td>• Homeowners associations</td>
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<tr>
<td>• Business organizations</td>
</tr>
<tr>
<td>• Schools</td>
</tr>
<tr>
<td>• Watershed organizations</td>
</tr>
<tr>
<td>• Public land stewardship organizations</td>
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<tr>
<td>• Local municipalities, as appropriate, such as City of Gaithersburg, City of Rockville, City of Takoma Park, etc.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>New Partnerships to Develop:</th>
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</thead>
<tbody>
<tr>
<td>• Veterinarians</td>
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<tr>
<td>• Pet Stores</td>
</tr>
<tr>
<td>• Groomers</td>
</tr>
<tr>
<td>• Kennels and in-home care providers</td>
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<tr>
<td>• Pet rescue leagues, Humane Society, SPCA</td>
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</tbody>
</table>
Delivery Techniques:
Pet waste pick up messages should be delivered at the neighborhood level by HOAs and businesses. They should be delivered on public lands by the citizen groups that support those lands. Delivery should clarify that the pet waste problem is more than aesthetics, it causes water quality degradation.

These techniques are presented in order of the simplest and most likely to be effective, to those techniques that would marginally affect behavior change when used alone, but may have a significant affect when used cumulatively with the other listed techniques.

<table>
<thead>
<tr>
<th>Target Technique</th>
<th>Dog walkers</th>
<th>Those who own land where pets live</th>
<th>Those who purchase pet food</th>
<th>Those who care for pets in any other way</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOA newsletter inserts</td>
<td></td>
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<td>*</td>
<td></td>
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<tr>
<td>Signage at pet supply stores</td>
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<td>*</td>
<td>*</td>
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<tr>
<td>Signage at feed stores</td>
<td></td>
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<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Signage at veterinarian offices</td>
<td></td>
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<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Neighborhood pet waste pick up stations</td>
<td></td>
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<tr>
<td>Business center pet waste pick up stations</td>
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<tr>
<td>Walking trail and public park pet waste pick up stations</td>
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<tr>
<td>Messages on receipts</td>
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</tbody>
</table>

Prioritization should be given to those watersheds with specific bacteria reduction goals: Anacostia, Rock Creek, Cabin John, and Lower Monocacy

Target Audience:
- Pet owners – including those with dogs, cats, larger caged animals such as rabbits and ferrets, and hobby farm pets such as horses or llamas
- In-home pet care providers – including dog walking services, lawn services that remove pet waste, or in-home visit veterinarians (particularly used by those with larger animals or multiple animals)
- Public lands stewards—such as “friends of” organizations, hiking clubs, and sports clubs
- Businesses and Nonprofits frequented by pet owners
- Home Owners Associations (HOAs)-to encourage social stigma against pet waste left unattended
- Schools
Approximate Program Start-Up Cost – $240,500
Comprised of the following elements:

Pre-Program Planning
- Identify funding/sponsorship sources ($3,750)
- Secure funding from grantors, sponsors and county sources ($5,000)

Program Planning
- Develop list of all potential new partners ($2,500)
- Develop campaign logo/slogan* ($2,500)
- Install 25 demonstration pet waste disposal stations ($10,000)

Program Development
- Initiate contact with all potential partners (guesstimate of 500 letters = $1,000)
- Develop program description document ($3,750)
- Develop sign template for partners ($1,250)

Program Implementation
- Distribute program materials electronically ($1,250)
- Distribute print program materials (1000 sets @ $2.00 per set = $2,000)
- Execute 50% rebate program ($200,000)
- Measure program implementation ($7,500)

*campaign design can range in costs from the bare minimum suggested here to tens of thousands of dollars depending on the level of market research conducted before concept development and the number of concepts developed for consideration. This budget assumes that an existing campaign design will be adapted for use in Montgomery County.

**The above list of cost elements and approximate pricing was derived from experiences reported in 2009 from the Arundel on the Bay neighborhood in Anne Arundel County Maryland and from the US EPA Office of Wastewater Sustainable Infrastructure (SI) campaign development in 2009.
Timeline for Start-Up and Early Implementation:
The following timeline was derived from experiences reported in 2009 from the Arundel on the Bay neighborhood in Anne Arundel County Maryland and from development and implementation of business and resident shoreline improvement assistance with the Spa Creek Conservancy in 2005 – 2007

- **Program Planning**
  - Develop lists
  - Develop campaign
  - Install demonstrations

- **Program Development**
  - Initiate contact with partners
  - Develop program plan
  - Develop sign template

- **Program Implementation**
  - Distribute program materials
  - Execute rebates

- **Program Sustainment**
  - Measure success
    - 2015
    - 2017
    - 2025

**Implementation locations:**
- Neighborhoods with walking trails
- Pet-friendly business areas
- Watersheds with bacteria reduction targets

**Measuring Program Success**
- Before and after attitude surveys
- Tracking and reporting of disposal quantities from disposal service providers
- Tracking and reporting requests for stations
- Number of pet waste citations issued by year
**Summary:**
Montgomery County’s third-round National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit requires that the County meet total nitrogen and total phosphorus load reductions in certain watersheds. In those watersheds, it seems that the greatest load reduction for the lowest cost can be achieved through lawn care education. Although the focus of the implementation plans is on residential lawn care education, it seems cost effective to facilities managers who may care for large lawns in high density residential units or private clubs and schools. Focus should also be applied to Montgomery County Departments that maintain public facilities in the targeted watershed areas to reach these load reductions.

**Intended Outcome:**
Behavior change throughout the county such that fertilizer application is reduced resulting in reductions in nitrogen and phosphorus in streams.

**Measures:**
- Reduction in pounds of fertilizer sold by hardware stores each year after first baseline year established
- Increase in awareness and self-reporting of improved behavior for lawn care practices
- Increase each year in number of homeowner associations and community groups actively requesting and receiving lawn care awareness literature and information.
- Reduction in instream nutrient concentration for impaired watersheds (e.g., Patuxent).

**Key Messages**
- Fertilization of home lawns is becoming a significant source of pollution to our waterways
- Turf should be replaced with native plants as much as possible
- Avoid over cutting grass
- Leaving grass clippings in place reduces the need for fertilizers
- Have your soil tested before applying fertilizer
- Fertilizer should never be applied on dormant lawns or after October 1
- Slow release or organic fertilizers should be used in place of quick-release fertilizers
- Overfertilization of flower and vegetable gardens is also a hazard to neighboring streams.

**Existing Partnerships to Nurture:**
- Montgomery County Code Enforcement
- Montgomery County Division of Solid Waste Services (Grasscycling & Composting programs)
- Maryland –National Capital Park and Planning Commission (MNCPPC)
- Neighborhood and Homeowners Associations
- Watershed Organizations
- Nurseries and garden centers
- University of Maryland Cooperative Extension including Master Gardeners
- Homeowners
- Local municipalities, as appropriate, such as City of Gaithersburg, City of Rockville, City of Takoma Park, etc., etc.

**New Partnerships to Develop:**
- Lawn care companies
- Lawn care supply retailers
- Commercial facilities with large tracts of turf such as country clubs, schools, or privately owned playing fields
- Montgomery College
Delivery Techniques:
Messages should be developed based on information gathered and disseminated by the Choptank Riverkeeper in 2010 and found on the MD DNR web page and the USFWS BayScape web page. Recommended to look like Puget Sound Action Team fertilizer campaign to make it “sexier.” Use existing content from County Grasscycling program and the MD DNR and USFWS BayScapes program. Extensively disseminate key messages to create a strong awareness of watershed friendly lawn care practices.

These techniques are presented in order of the simplest and most likely to be effective, to those techniques that would marginally affect behavior change when used alone, but may have a significant affect when used cumulatively with the other listed techniques.

<table>
<thead>
<tr>
<th>Target Technique</th>
<th>Homeowner</th>
<th>Lawn Care Provider</th>
<th>Facilities Operations Manager</th>
<th>Lawn care supply retailers</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOA newsletter inserts</td>
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<tr>
<td>Multi-language fact sheets</td>
<td>*</td>
<td>*</td>
<td></td>
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<tr>
<td>Certification program</td>
<td></td>
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<tr>
<td>Posters for display</td>
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<tr>
<td>PSA campaign</td>
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<td></td>
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<td>*</td>
</tr>
<tr>
<td>Social media campaign</td>
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</tbody>
</table>

Prioritization should be given to those watersheds with specific nutrient and phosphorus reduction goals such as Anacostia, Patuxent (Rocky Gorge), and areas surrounding Clopper Lake.

Target Audience:
- Homeowners – especially those with turf grass yards
- Lawn Care Providers -- including larger landscaping services as well as individual service providers
- Facilities operation managers – including country club, golf course, private sports fields (i.e., Olney boys and girls club), and corporate centers with large lawns
- Lawn supply retailers – including large chains (i.e., Home Depot) and small neighborhood nurseries or hardware stores.
Approximate Program Start-Up Cost -- $30,600
Comprised of the following elements:

Pre-Program Planning
• Identify funding/sponsorship sources ($3,750)
• Secure funding from grantors, sponsors and county sources ($5,000)

Program Planning
• Coordinate with Solid Waste on the specifications for “newsletter helper” submissions ($250)
• Gather information currently available to provide for translation ($250)
• Initiate contact with Montgomery College and Anne Arundel Community College regarding a landscape design LID certification program ($750)
• Discuss with Parks and Public Works the possibility of appropriate county maintenance staff seeking certification in the Professional Landscape series ($250)

Program Development
• Draft newsletter helper and PSA and social media campaign content ($2,500)
• Have Spanish and Korean versions of needed fact sheets and posters prepared ($1,250)
• Design and develop fact sheets, posters, PSA and social media campaign materials ($3,750)
• Work with Anne Arundel Community College and Montgomery College to facilitate curriculum development for the certification program ($2,500)
• Draft announcements of the availability of the certification program ($250)

Program Implementation
• Distribute newsletter helper, PSA and social media campaign ($1,000)
• Post all fact sheets and posters to website ($250)
• Publicize availability of certification program at Montgomery College to facilitate enrollment ($250)
• Celebrate first graduating class of certification program (2 staff for 4 hrs @$1,000 plus small celebration item budget of $100)
• Measure Success ($7,500)

* This list of cost elements and approximate pricing was derived from experience with the CERCLA Education Center, US EPA Watermark campaign, and Annapolis Green.

Delivery Technique Description
• HOA newsletter inserts – to be distributed through Solid Waste’s “newsletter helper” which is distributed electronically on a regular basis to HOAs throughout the county – to include information on the grasscycling program, fertilizer use, and compost bin availability
• Multi-language fact sheets posted to county web site – to include the same information as currently available on the grasscycling portion of the county web page, plus additional information on fertilizers.
• Certification program – in partnership with Montgomery College to offer a program similar to Anne Arundel Community College’s Professional Landscape Series
• Posters for display that can be distributed electronically and downloaded for printing – to encourage participation in the grasscycling program
• PSA campaign – to encourage participation in the grasscycling program
• Social media campaign – to encourage participation in the grasscycling program and possibly demonstrate BMPs.
Timeline for Start-Up and Early Implementation:

The following timeline was derived from the same experiences cited in development of the cost for this program.

- **Program Planning**
  - Coordination and meeting tasks
  - Information gathering

- **Program Development**
  - Drafting, design, and development of materials
  - Facilitate curriculum development

- **Program Implementation**
  - Distribute and post materials
  - Celebrate graduates

- **Program Sustainment**
  - Measure success
  - 2015
  - 2017
  - 2025

**Implementation locations:**
- Countywide
- Targeted residential neighborhoods in watershed, based on lot size, income and neighborhood age.

**Measuring Program Success**
- Reduction in sales of high nitrogen fertilizers
- Before and after attitude surveys
- Number of posters downloaded
- Number of newsletter articles included
- Stream Monitoring
### Summary:
In 2006, Montgomery County committed to the goal of a trash free Potomac River by 2013 and signed the *Potomac River Watershed Trash Treaty* with other Washington, D.C. metropolitan area jurisdictions. Activities to meet obligations under the Treaty include trash abatement program implementation, education, enforcement, and evaluation. In addition, the Anacostia River watershed has a specific trash load reduction requirement that has been established by the Maryland Department of the Environment. These two major commitments mean that anti-littering education is needed across the County to reduce trash in its watersheds. There are a range of stakeholder groups to target for education, which requires a number of messages in multiple languages that are delivered in multiple formats.

Under existing initiatives, the Anacostia Watershed Society, in conjunction with the Alice Ferguson Foundation (AFF), has begun thorough development of an outreach campaign to affect littering behavior in Montgomery and Prince Georges counties and in the District of Columbia. Montgomery County DEP staff is participating in this campaign development process. This stewardship outreach work plan should build on the messaging of the AFF effort and therefore use materials already under development to educate the public on the dangers of litter beyond just the Anacostia watershed.

### Intended Outcome:
Behavior change throughout the county such that individuals find it repulsive to leave litter unattended resulting in less litter in streams

### Measures:
- Reduction in citations after initial baseline year where enforcement is stepped up.
- Reduction in hotline reports after initial baseline years where hotline is advertised and promoted.
- Increase in number of volunteers participating in trash cleanup days after initial baseline year.
- Increase in awareness and self-reporting of improved behavior for trash control.
- Positive behavior change for trash can management through before and after surveys in neighborhoods which have received targeted outreach.
- Rating based on visual assessment surveys of public recreational areas before and after increased effort with education and maintenance.

### New Partnerships to Develop:
- Faith-based organizations
- Central Business Districts and Chambers of Commerce
- Youth athletics organizations and groups like Boys Scouts and Girl Scouts
- Neighborhood and homeowner associations
- Montgomery County Police Department

### Key Messages:
- Taking care of trash at its source.
- Trash cans need proper maintenance.
- Dumpsters need proper management.
- Littering laws can be enforced.
- Pick up the litter from playing fields to keep it out of your neighborhood and the nearby rivers and streams.
- Allowing Trash to accumulate near businesses and neighborhoods personifies unhealthy conditions and creates a negative public image reducing economic benefits and property values.

### Existing Partnerships to Nurture:
- Alice Ferguson Foundation
- Recycling services
- County littering enforcement staff
- Watershed Organizations (especially Friends of Rock Creek’s Environment’s (FORCE) Stream Teams
- Nonprofit Organizations
- Department of Transportation (DOT)
- Local municipalities, as appropriate, such as City of Gaithersburg, City of Rockville, City of Takoma Park, etc.
Delivery Techniques:
Building on the work of the Alice Ferguson Foundation, the county should assist with information dissemination using already established county information dissemination networks to reinforce AFF’s campaign. At this time it appears the campaign is considering billboards, bumper stickers, decals, flyers, on-line advertisements, posters, print advertisements, radio public services announcements, and web page.

These techniques are presented in order of the simplest and most likely to be effective, to those techniques that would marginally affect behavior change when used alone, but may have a significant affect when used cumulatively with the other listed techniques.

<table>
<thead>
<tr>
<th>Target Technique</th>
<th>Playing field owners and users</th>
<th>Trash can/dumpster owners or users</th>
<th>Waste removal contractors</th>
<th>Enforcement officials</th>
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</thead>
<tbody>
<tr>
<td>e-mail blasts</td>
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<tr>
<td>Web page link to AFF campaign</td>
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<tr>
<td>Event presence</td>
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<tr>
<td>County staff training</td>
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<tr>
<td>Increased enforcement of littering violations</td>
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Prioritization should be given to the Anacostia which has a specific litter reduction goal as well as the tributaries to the Potomac: Cabin John, Great Seneca, Lower Monocacy, Muddy/Watts Branch, and Rock Creek.

Target Audience
- Those who maintain athletic fields
- Those who use athletic fields
- Those who maintain trash receptacles (cans and dumpsters – including independent trash haulers)
- Those who use trash receptacles (cans and dumpsters)
- Enforcement officials
- County residents in the targeted watersheds
- Residents living in and businesses located within identified trash & dumping “hotspots”
Approximate Program Start-Up Cost -- $175,050
Comprised of the following elements

Pre-Program Planning
- Identify funding/sponsorship sources ($3,750)
- Secure funding from grantors, sponsors and county sources ($5,000)

Program Planning
- Coordinate with Solid Waste and Public Works and Transportation regarding number of e-mails that can be sent and length of message to be developed ($500)
- Coordinate with AFF and DEP Web manager to identify parameters for web posting ($500)
- Develop a list of targeted festivals and events (coincidental to practices number 5 and 6 ($1,000)
- Coordinate with Solid Waste to plan agenda for county employee training ($750)
- Coordinate with enforcement and parks maintenance to increase activity ($500)

Program Development
- Develop e-mail messages ($1,500)
- Obtain AFF materials for web posting ($500)
- Coordinate staffing and materials for festivals and events ($2,000)
- Develop powerpoint and handouts for 1 hour training program ($2,000)
- Schedule additional staff hours for increased enforcement and playing field maintenance ($1,000)

Program Implementation
- Queue e-mails for distribution ($500)
- Post AFF messages to DEP web site ($250)
- Post advertisements inside and outside of County Ride-on buses and bus shelters = ($43,500), $15,500 for County Ride-On bus ads, 25 priority bus shelters ads at hot spots $28,000.
- Post large signs on Solid Waste collection trucks = ($16,800) Implement on 15 trucks servicing priority areas)
- Staff festivals and events (1 paid staff with volunteers for 15 events = $15,000 plus print materials/handouts @ $5,000)
- Conduct training for collection personnel (est. 30 people @ 2hrs/person = $7,500)
- Increase staffing for stepped up maintenance and enforcement (est. 2 half-FTE for 1 FTE @60,000)
- Measure Success ($7,500)

*This list of cost elements and approximate pricing was derived from experiences working with the US Navy in development and delivery of pollution prevention outreach, working with the City of Annapolis training maintenance staff on watershed education, and support to the MD Port Administration Safe Passages program.

Delivery Technique Description
- Using existing county e-mail systems increase littering-related messages
- Posting AFF PSAs and other materials on the county web page and a link to the AFF campaign web page
- Increased presence at events such as the Spanish festival in September each year
- Expanded anti-litter training to all County employees with a renewed emphasis for collection personnel to clean up any spillage during collection and to properly secure the load on the collection vehicle before moving it
- Increased maintenance of trash receptacles on county playing fields
- Increased enforcement activity for littering violations to include increased issuance of citations and subsequent dissemination of those littering enforcement statistics until behavior changes are achieved.
Timeline for Start-Up and Early Implementation:
The following timeline was derived from experience with developing hundreds of employee training programs for the US EPA, planning and participating in festivals and events for over 25 years, coordinating internet-based outreach for dozens of clients for over 14 years, and experience in hazardous waste enforcement nationwide.

**Implementation Points**
- Medium and high density residential areas
- Commercial and industrial areas
- Roadways
- Parks and playing fields

**Measuring Program Success**
- Tracking and reporting the number of littering citations issued
- Tracking and reporting the number of littering reports on the hotline
- Tracking and reporting the number of volunteers at clean up days
- Before and after attitude surveys
- Tracking and reporting of visual assessments of park litter and roadway median and swale litter.

* timing can be affected by availability of AFF materials
Summary:
The County’s preferred restoration strategy to treat 20% of the inadequately treated impervious surface consists of a balanced mix of Environmental Site Design (ESD) and non-ESD restoration practices, linked to opportunities that are known to exist and building on existing watershed restoration plans (e.g., Sligo Creek, Rock Creek, etc.). Specifically, the County’s preferred restoration strategy consists of the following key elements:
- Retrofit of existing BMPs;
- Construction of retrofits identified as priorities in current County inventories;
- Targeted ESD retrofits of County owned buildings;
- Targeted ESD retrofits of County roads;
- Targeted ESD retrofits of County schools;
- Voluntary programs and educational efforts targeting pollutants of concern (e.g., nutrients, bacteria, and trash).
To garner continued public understanding and public support for these elements of the restoration strategy, it is recommended that signs and awareness activities are used to facilitate recognition of ESD restoration practices throughout the county, especially on public sites and other locations where foot traffic is expected to be the highest.

Intended Outcome:
Behavior change throughout the county such that citizens and elected officials advocate to increase funding for ESD capital improvements.

Measures:
- Increase in number of media hits after initial baseline year.
- Increase in number of map downloads after initial baseline year.
- Increase in awareness of public property retrofits through public attitude surveys.
- Increase in requests from community groups to have similar projects in their communities.

New Partnerships to Develop:
- Maryland Geocaching Society
- Montgomery County STEM Academy
- Private businesses
- Real estate professionals

Key Messages
- There are new ways to manage stormwater
- This is what ESD practices look like, including rainwater harvesting, green roofs, rooftop disconnection, dry swales, etc.
- This is an increased street sweeping location
- This is an impervious cover reduction site

Existing Partnerships to Nurture:
- Department of Recreation
- Montgomery County Public Works and Transportation Department (including Keep Montgomery County Beautiful (KMCB) program
- Watershed Organizations
- Those who have successfully used the County RainScapes Program or live in an area where ESD has been implemented
- Private and Parochial Schools
- Nonprofit organizations such as Bethesda Green and Poolesville Green
- University of Maryland Cooperative Extension
- Montgomery County Public Schools (MCPS)
- Local municipalities, as appropriate, such as City of Gaithersburg, City of Rockville, City of Takoma Park, etc.
**Delivery Techniques:**
The recommended delivery techniques were developed based on thirteen years of experience with educational stormwater management signage design and installation in Annapolis, MD and other locations throughout Anne Arundel county.

These techniques are presented in order of the simplest and most likely to be effective, to those techniques that would marginally affect behavior change when used alone, but may have a significant affect when used cumulatively with the other listed techniques.

<table>
<thead>
<tr>
<th>Target Technique</th>
<th>Voting public</th>
<th>Passers by</th>
<th>Elected officials</th>
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<tbody>
<tr>
<td>Signage</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Geo-data points</td>
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<td>*</td>
<td></td>
</tr>
<tr>
<td>Pdf maps and phone applications of bike and walk routes of sites</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>County council bus tour</td>
<td></td>
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<tr>
<td>Clean up/maintenance events</td>
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</tbody>
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Prioritization should be given to those watersheds with ESD goals: Anacostia, Cabin John, Rock Creek, Lower Monocacy and Patuxent.

**Target Audience:**
- Those who work or live near the improvement site
- Walkers and runners who may pass by the site and see the signage
- Bicyclists who may ride past the site and see the signage
- Voting public in general
- Elected officials such as County Council members
Approximate Program Start-Up Cost -- $50,450
Comprised of the following elements:

**Pre-Program Planning**
- Identify funding/sponsorship sources ($3,750)
- Secure funding from grantors, sponsors and county sources ($5,000)

**Program Planning**
- Identify locations of BMPs ($1,000)
- Identify and obtain permits needed for signage ($5,000)
- Coordinate bus tour with council offices ($500)

**Program Development**
- Design signs ($4,000)
- Procure sign manufacture ($14,000)
- Coordinate with geocaching organization to incorporate sites ($500)
- Design map ($1200)
- Plan event for bus tour ($2,500)
- Schedule and plan clean up/maintenance events ($2,500)

**Program Implementation**
- Install signs (1 hr – including travel time – for 20 signs = $2,500)
- Upload sign locations ($250)
- Upload map ($250)
- Hold County Council event (4 hrs for 4 staff = $2,000 – does not include cost of elected official’s time and shuttle bus)
- Hold clean up/maintenance events (4 hrs for 1 manager, 1 outreach staff and 1 public works crew of 3, plus truck and supplies use @ $500 = $3,000)
- Measure Success ($2,500)

*This list of cost elements and approximate pricing was derived from experience at Back Creek Nature Park in Annapolis, MD.*

**Delivery Technique Description**
- Signage to be developed and installed describing the BMP and its intended result.
- Standardized signs could be developed for each BMP (resulting in approximately 8 different sign types)
- Geo-data point development for inclusion on geocaching web sites and pamphlets
- Biking and walking tour maps of the BMP sign locations to be developed and designed for easy download from the DEP website onto hand held devices. Availability of the maps to be announced via press releases
- Two hour County council bus tour to be an organized weekend event for county council members, hosted by a senior DEP official or the County Executive, with press coverage to increase public awareness of the capital improvements already made in the county and what future improvements will look like.
- Clean up and maintenance events to be held at the BMP locations in conjunction with stream stewards and other watershed organizations, to increase a sense of community ownership of the BMPs and to increase understanding of the maintenance process.
Timeline for Start-Up and Early Implementation:
The following timeline was derived from experience coordinating similar projects in Anne Arundel county.

**Implementation locations:**
- Countywide

**Measuring Program Success:**
- Track and report media hits on specific improvement sites after each program element is implemented
- Track and report number of hits to download the 2 maps
- Before and after attitude surveys
- Track and report requests for High priority projects.
- Observe and track increases in budget allowances for installation of ESD practices.

### Timeline Details:

#### Months 1-2
- **Program Planning**
  - Permit Signs
  - Coordinate tour with County Council

#### Months 3-6
- **Program Development**
  - Design and manufacture signs
  - Design maps
  - Plan events

#### Months 7-8
- **Program Implementation**
  - Install signs
  - Upload electronic information
  - Hold events

#### Through the Year 2025
- **Program Sustainment**
  - Measure success
    - 2015
    - 2017
    - 2025
January 2012
Public Outreach and Stewardship Practice No. 5
STREAM STEWARDS OUTREACH AND STEWARDSHIP CAMPAIGN

**Summary:**
Although the County currently implements a public education and outreach program to reduce stormwater pollutants, to assure compliance with the third-round Permit will require a significant increase in effective public stewardship and local stream protection.

An important goal will be to create champions for each neighborhood’s streams as a cost-effective way to exponentially increase the effectiveness of county outreach to landowners and businesses or organizations with streams on their property, or in their community. Establishing a group of champions for the streams to help implement practices identified in the watershed implementation plans and a continuous volunteer corps to help disseminate information will be key to the plans’ success. Two possible models to meet both aspects include that of the Solid Waste’s Recycling Volunteer Program and Friends of Rock Creek’s Environment’s (FORCE) Stream Teams program. Success in adopting these for multiple watersheds in the County will aid the efforts to achieve the significant increase in outreach needed to fulfill the MS4 permit requirements. These models can also forge the creation of additional watershed groups throughout the County.

**Intended Outcome:**
Behavior change throughout the county such that a diverse group of individuals are actively participating in the care and education about neighborhood streams.

**Measures:**
- Increase in stream miles adopted by groups each year
- Increase in volunteer hours dedicated to each adopted stream segment, to which load reductions are achieved.
- Increase in awareness and self-reporting of improved behavior for trash control
- Increase in watershed group formations and volunteer participation at public events.

**New Partnerships to Develop:**
- Homeowners associations
- Ethnic organizations (social, business or religious)
- High schools that are certified Green Schools
- Local colleges environmental studies or watershed-related field program members

**Key Messages:**
- Every county resident must accept responsibility for the quality of our streams
- There are individuals in every neighborhood who can help coordinate care for county streams
- The county government cannot protect and restore the county streams without residents’ help
- County residents of all ages and cultures are encouraged to help protect and restore county streams

**Existing Partnerships to Nurture:**
- Solid Waste’s Recycling Volunteer Program
- Friends of Rock Creek’s Environment – Stream Team Program
- Other watershed and environmental organizations (including Izaak Walton League, Audubon Naturalist Society, and Trout Unlimited)
- Other nonprofit organizations such as Bethesda Green and Poolesville Green
- Montgomery County Volunteer Services (Service Learning)
- Local municipalities, as appropriate, such as City of Gaithersburg, City of Rockville, City of Takoma Park, etc.
Delivery Techniques:

A stream stewards program should be modeled after the two mentioned programs. Solid Waste’s Recycling Volunteer Program and FORCE’s Stream Teams can create champions for each neighborhood’s streams. The Recycling Volunteer Program provides volunteers that can be called upon to help the County disseminate county watershed outreach material. Information dissemination can include all of the topics prioritized in the watershed implementation plans (pet waste, litter, lawn care, imperviousness reduction, and riparian buffer restoration). Unlike the Recycling Volunteer Program, FORCE’s Stream Teams provides leadership opportunities for hands-on stewardship projects in addition to disseminating watershed education material. Adopting aspects from both models can significantly make strides towards meeting MS4 permit requirements.

Ideally, the stream stewards will include representatives from all county ethnic and cultural groups, as well as representation from all watersheds. Outreach associated with recruiting, training and eventually maintaining the stream stewards comprise the majority of this campaign effort.

<table>
<thead>
<tr>
<th>Target Technique</th>
<th>Home Owners and Renters</th>
<th>Students</th>
<th>Faith and Cultural Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOA newsletter inserts</td>
<td></td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Direct mail to faith and cultural orgs</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Press release on program</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Web site presence</td>
<td></td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Festival and event booth presence</td>
<td></td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>List serve/yahoo group communication</td>
<td></td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Prioritization should be given to the following watersheds: Anacostia, Rock Creek, Cabin John, and Muddy/Watts

Target Audience:
- County residents to include both homeowners and renters with an interest in the topic and a small amount of volunteer time available
- Students at local high schools, community colleges and universities, either looking for practical experience or community service credit.
- Faith organizations with environmental stewardship committees or missions, to include all faiths represented in the County (i.e., church organizations, temple groups, mosque groups, and others).
- Cultural organizations to include as many of the cultural identities in the county as possible (i.e., Korean, Chinese, Latin American, African American, and etc.)
Approximate Program Start-Up Cost -- $74,825
Comprised of the following elements:

Pre-Program Planning
- Identify funding/sponsorship sources ($3,750)
- Secure funding from grantors, sponsors and county sources ($5,000)

Program Planning
- Coordinate with Solid Waste on the specifications for “newsletter helper” submissions ($250)
- Obtain and refine faith and cultural organization mailing lists ($1,000)
- Coordinate press release timing with County Public Affairs ($75)
- Coordinate with DEP website manager to identify parameters for web posting ($500)
- Develop list of targeted festivals and events ($1,000)
- Develop scoping document for list serve/communication tool for Stream Stewards ($1,000)

Program Development
- Draft “newsletter helper” content ($250)
- Draft letter to faith and cultural organizations ($750)
- Draft press release on program ($250)
- Develop website content and list serve/communication tool (contractor estimate of $35,000)

Program Implementation
- Distribute newsletter helper piece and press release ($500)
- Mail letter to faith and cultural organizations (approximately 500 letters for printing, supplies and postage = $1,000)
- Post and trouble shoot to DEP web page ($2,000)
- Launch list-serve/communication tool (included in contractor estimate above)
- Staff festivals and events (1 paid staff with volunteers for 8 hrs for 15 events = $15,000 – handouts printing costs included in other outreach practices)
- Measure success ($7,500)

* This list of cost elements and approximate pricing was derived from experience with the Columbia Association Watershed Advisory Committee, the US EPA Recycling Partnership, and quotes obtained from web designers for the NOAA CBIBs website.

Delivery Technique Description
- HOA newsletter inserts – to be distributed through Solid Waste’s “newsletter helper” which is distributed electronically on a regular basis to HOAs throughout the county
- Direct mail to faith and cultural organizations – to include encouragement to strengthen the diversity of groups protecting and enhancing county watersheds
- Press release on program – describing the need for volunteers and how to volunteer
- Posting of program information on the DEP web site with on-line registration, training, and scheduling
- Festival and event booth presence to include 2 or more trained volunteers handing out watershed education information and speaking with festival and event attendees about stormwater outreach initiatives at events like the interfaith green fair, Hispanic Heritage and Latino American events, Muslim community center events, and the Asian American resource fair and festivals.
- Creation of a list-serve or other communication tool for stream stewards, which would allow members to post and respond to messages and connect without county assistance.
Timeline for Start-Up and Early Implementation:
The following timeline was derived from professional experience working with numerous organizations to recruit volunteers.*

- **Program Planning**
  - Develop lists
  - Coordinate with other County offices
  - Develop scoping document for communication tool

- **Program Development**
  - Draft content
  - Develop tool

- **Program Implementation**
  - Distribute material
  - Schedule staff and events
  - Improve tool

- **Program Sustainment**
  - Measure success
    - 2015
    - 2017
    - 2025

Implementation locations:
- Countywide

Measuring Program Success
- Track and report number of stream miles adopted each year
- Track and report number and diversity of volunteers recruited, hours volunteered by stream, watershed and/or event.
- Before and after attitude surveys
- Track and report number of violations reported on hotline
- Track and report number of watershed groups created and membership trends.
- Track and report number of events staffed annually.

*example organizations include the Columbia Association, Friends of Back Creek Nature Park, Maryland Recyclers Coalition, Waterfowl Festivals Inc., Maryland Maritime Heritage Festival, and Friends of the Light House Shelter.
Summary:
Montgomery County’s third-round National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit requires that the County restore the County’s watersheds through runoff management, and reduce pollutants as required by the watershed TMDLs. In addition the county seeks to reduce stormwater volume and velocity and cool riparian environments, all to improve stream conditions and habitat.

To encourage this habitat restoration and pollutant reduction on private property, stakeholder outreach is recommended for landowners and patrons of businesses or organizations with streams on their property, and covering the important roles of riparian buffers in the landscape.

Intended Outcome:
Behavior change throughout the county such that landowners are actively involved in riparian buffer installation and maintenance on and near their property

Measures:
- Increase in trees planted each year
- Increase in linear feet of buffer restored each year
- Increase in number of HOAs actively involved in buffer program each year.

New Partnerships to Develop:
- Homeowner and landowners associations
- Nurseries and garden centers
- Chambers of Commerce
- Facilities and businesses that border streams lacking adequate buffers

Key Messages:
- Riparian forests play an important role in protecting and restoring the streams and lakes in Montgomery County
- Trees and shrubs should extend 100 feet on each side of a stream for adequate nitrogen and sedimentation removal. The County should promote as much riparian buffer establishment as possible for ideal stream protection.
- Riparian buffers catch sediment and debris—preventing them from entering streams.
- Riparian buffers provide shade and cool streams, creating healthier habitat for fish and other biota in the streams.
- Establishing an adequate riparian buffer on a landowner’s property is essential to protecting water quality and stream ecology in the County.

Existing Partnerships to Nurture:
- Watershed Organizations
- Montgomery County Volunteer Center
- Angler groups including Trout Unlimited
- Montgomery Soil Conservation District (MSCD) (including Natural Resource conservation Service - NRCS)
- Local municipalities, as appropriate, such as City of Gaithersburg, City of Rockville, City of Takoma Park, Township of Olney, etc.
Delivery Techniques:

In an effort to expand the riparian buffer restoration and maintenance message significantly throughout the county the message of its importance should be delivered and demonstrated through partnerships with existing programs and established dissemination capabilities.

These techniques are presented in order of the simplest and most likely to be effective, to those techniques that would marginally affect behavior change when used alone, but may have a significant affect when used cumulatively with the other listed techniques.

<table>
<thead>
<tr>
<th>Target</th>
<th>Land owners with streams</th>
<th>Patrons of lands with streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Audience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private land owners with streams on their property</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members of organizations with private lands which include streams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patrons of businesses with private lands which include streams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees of organizations with private lands which include streams</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prioritization should be given to those watersheds with specific buffer installation goals: Lower Monocacy, Patuxent, and Muddy/Watts

Target Audience:

- Private land owners with streams on their property
- Members of organizations with private lands which include streams
- Patrons of businesses with private lands which include streams
- Employees of organizations with private lands which include streams
Approximate Program Start-Up Cost -- $30,575
Comprised of the following elements:

Pre-Program Planning
- Identify funding/sponsorship sources ($3,750)
- Secure funding from grantors, sponsors and county sources ($5,000)

Program Planning
- Coordinate with Solid Waste on the specifications for “newsletter helper” submissions ($250)
- Develop what assistance and how many trees will be offered for grant partnerships ($500)
- Coordinate press release timing with County Public Affairs ($75)
- Determine how many handouts will be needed on current programs to ensure thorough distribution at festivals and events ($500)

Program Development
- Draft “newsletter helper” content ($250)
- Draft press release on program ($250)
- Draft web site content on in-kind offer ($250)
- Have Spanish and Korean versions of needed handouts prepared ($1,250)
- Print needed handouts to ensure thorough distribution of current program materials at festivals and events ($5,000 printing budget)

Program Implementation
- Distribute newsletter helper piece and press releases periodically ($500)
- Post web site content on in-kind offer ($250)
- Provide print materials to stream stewards coordinator ($250)
- Provide in-kind and plant material assistance ($10,000)
- Measure Success ($2,500)

* This list of cost elements and approximate pricing was derived from experience with similar projects in Anne Arundel County and Montgomery County

Delivery Technique Description
- HOA newsletter inserts – to be distributed through Solid Waste’s “newsletter helper” which is distributed electronically on a regular basis to HOAs throughout the county
- Partnership on riparian buffer grant applications – advertised through county website, stating that if a non-profit is seeking grant funding for riparian buffer installation that the county will offer in-kind and plant material assistance as a match, to strengthen grant applications.
- Press releases on availability of existing programs – to augment advertising done by other tree-friendly programs the County can distribute press releases when those programs become available to county residents. Example programs include DNR training programs such as Backyard forests, Private woodlands owners, and Woods in your backyard; Marylanders plant trees; and MNCPCC Leaves for Neighborhoods
- Existing program information at booths at festivals and events – whenever DEP watershed outreach staff or volunteers are staffing a booth at a festival or event, riparian buffer program information should be included in the booth display.
Timeline for Start-Up and Early Implementation:
The following timeline was derived from the same experiences cited in development of the cost for this program.

- **Months 1-2**: Program Planning
  - Coordination activities
  - Research activities

- **Months 3 - 5**: Program Development
  - Drafting activities
  - Printing activities

- **Months 6 - 18**: Program Implementation
  - Distribute materials
  - Participate in tree planting

- **Through the Year 2025**: Program Sustainment
  - Measure success
    - 2015
    - 2017
    - 2025

**Implementation locations:**
- Unbuffered streams in private lands
- Industrial areas
- Private clubs and schools

**Measuring Program Success**
- Tracking and reporting number of trees planted each year
- Tracking and reporting linear feet and average width of riparian buffer installed each year
- Tracking and reporting number of HOAs actively involved with buffer program each year
- Before and after attitude surveys of landowners in targeted watersheds
- Tracking and reporting number of requests for information on tree planting programs and requests for use in newsletter inserts.
Summary:

Montgomery County’s third-round National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit requires that the County restore an additional 20% of the total untreated impervious acres to the maximum extent practicable (MEP) on a county-wide basis during the five year permit cycle. Moreover, watersheds throughout the county have total maximum daily load (TMDL) requirements necessitating reduction in sediments throughout county streams. Lastly, stream scour has been identified as a contributory factor to stream habitat impairment.

Residential roofs, commercial roofs, and other hard surfaces such as driveways are all sources of imperviousness. To reduce stormwater pollution on private property, stakeholder outreach is recommended explaining the need for watershed stakeholders to capture some of the precipitation that falls on their roof. Capture allows for groundwater recharge and slows the flow of surface waters reducing associated erosion impacts. It is recommended that this can be accomplished by expanding existing County programs that help to get ESD practices installed as a result of County education and incentive programs (e.g., RainScapes incentives and green roof subsidies).

Intended Outcome: Behavior change throughout the county such that landowners consider it necessary to disconnect rooftops resulting in prevention of detrimental environmental harm.

Measures:

- Increase in number of attendees at workshops each year
- Increase in number of rooftop disconnections in targeted neighborhoods
- Increase in number of HOAs participating in disconnection program each year
- Increase in number of commercial properties achieving rooftop disconnection each year

New Partnerships to Develop:

- Civic, homeowners, and neighborhood associations
- Property management professionals
- Real estate professionals
- Neighboring county roof runoff social media programs

Key Messages

- Roofs are a source of high volumes of stormwater runoff
- It is important to capture some of the precipitation that falls on roofs to reuse as a water source
- It is important to slow the flow of precipitation from roofs to allow groundwater recharge and prevent detrimental environmental harm such as increased flooding, streambank erosion and stream scour.

Existing Partnerships to Nurture:

- Those who have successfully used the County RainScapes Program
- Watershed Organizations
- County Office of Consumer Protection
- Center for Watershed Protection seminar providers
- Utilities
- Commission on Common Ownership of Communities
- Montgomery County Office of Community Partnerships
- Montgomery County Department of Housing and Community Affairs
- Non-Profit Organizations such as Bethesda Green, Poolesville Green and Rebuilding Together
- Chambers of Commerce
- Local municipalities, as appropriate, such as City of Gaithersburg, City of Rockville, City of Takoma Park, etc.
Delivery Techniques:
The existing county RainScapes program should be expanded targeting the mapped areas in the implementation plans. Outreach to real estate professionals and homeowner assistance businesses should be used to help expand the program. Advertising materials already developed on EPA and other government web sites can be readily adapted to save costs. Service organizations with existing grant funding to educate should be invited to offer programs in Montgomery County specifically on topics such as rooftop disconnection and residential source assessments.

These techniques are presented in order of the simplest and most likely to be effective to those techniques that would marginally affect behavior change when used alone, but may have a significant affect when used cumulatively with the other listed techniques.

<table>
<thead>
<tr>
<th>Target</th>
<th>Home Owners and renters</th>
<th>Commercial Property Managers</th>
<th>Real Estate Professionals, landscaping firms, and roofing/gutter firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technique</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOA newsletter inserts</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Signage at home improvement stores</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Consumer Protection Office presentation materials</td>
<td>*</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Informational materials to realtors via e-mail and web site</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEP Web page videos or links to videos of RainScaping installation</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Media kit adaptation and use</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Targeted educational seminars/programs</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Prioritization should be given to those watersheds with specific runoff reduction goals: Anacostia, Cabin John, and Rock Creek

Target Audience:
- Homeowners
- Commercial property owners to include property owners with roofs suitable for the RainScapes program
- Residential renters who might be able to make non-structural changes to their property or to convince the landowner to make RainScapes improvements
- Commercial renters who might be able to make non-structural changes to their property or to convince the landowner to make RainScapes improvements.
- Realtors who would be comfortable explaining to clients the opportunities for RainScapes and the merits of already-installed RainScapes.
- Landscaping, roofing, and gutter firms capable of encouraging customers to consider Rainscape alternatives on their property
Approximate Program Start-Up Cost -- $101,400
Comprised of the following elements:

Pre-Program Planning
- Identify funding/sponsorship sources ($3,750)
- Secure funding from grantors, sponsors and county sources ($5,000)

Program Planning
- Coordinate with Solid Waste on the specifications for “newsletter helper” submissions ($250)
- Coordinate with Consumer Protection Office on presentation and handout specifications ($250)
- Develop distribution process for communicating with home improvement stores, realtors, and Landscaping, roofing, and gutter firms ($1000)
- Coordinate with neighboring counties and governments on specifications of available PSAs and conditions for their use ($1000)
- Coordinate with Center for Watershed Protection or other educational resources on processes for identifying and offering targeted seminars ($1000)

Program Development
- Write copy for “newsletter helper” submissions, CPO presentation and handout, and realtor and contractor informational materials ($2,500)
- Schedule targeted educational seminars and programs ($2,000)
- Obtain and if needed modify existing PSAs and other available videos for posting on DEP webpage ($2,500 plus $5,000 allowance for PSA modification)

Program implementation
- Distribute written materials ($1000 plus printing and postage allowance of $2,000)
- Post web materials and distribute PSA ($500)
- Conduct targeted seminars (20 2 hr seminars for 30 people each at $119/person = $71,400)
- Measure success ($2,500)

* This list of cost elements and approximate pricing was derived from experience with the Maryland Recyclers Coalition, Anne Arundel Rainscaping Education program, the Waterfowl Foundation, Inc., and the Center for Watershed Protection current seminar pricing.

<table>
<thead>
<tr>
<th>Delivery Technique Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>• HOA newsletter inserts – to be distributed through Solid Waste’s “newsletter helper” which is distributed electronically on a regular basis to HOAs throughout the county</td>
</tr>
<tr>
<td>• Signage at home improvement stores – to be distributed as electronically via e-mail and website posting as downloadable posters with key messages</td>
</tr>
<tr>
<td>• Consumer Protection Office presentation materials – to include a few power point slides and a handout that can be included in their speaker’s bureau’s speaker kits after speaker training by DEP</td>
</tr>
<tr>
<td>• Informational materials to realtors via email and website providing them the tools to speak informatively when showing a home with rainscape features or potential.</td>
</tr>
<tr>
<td>• Enhancement of the DEP webpage to include video or links to video of rainscape installation</td>
</tr>
<tr>
<td>• Media PSA campaign using existing media kits, with small adaptations to make it watershed-specific</td>
</tr>
<tr>
<td>• Targeted educational seminars and programs that go into specific neighborhoods and target specific audiences from the list of targets above.</td>
</tr>
</tbody>
</table>
### Timeline for Start-Up and Early Implementation:
The following timeline was derived from the same experiences cited in development of the cost for this program.

#### Implementation Points
- Targeted watersheds

#### Measuring Program Success
- Tracking and reporting number of attendees at workshops each year
- Tracking and reporting number of rooftop disconnections in targeted neighborhoods each year
- Tracking and reporting number of HOAs participating in rooftop disconnection programs each year
- Tracking and reporting number of commercial properties participating in rooftop disconnection each year
- Tracking and reporting number of rooftop disconnection specific video hits on DEP website and requests for PSA use by other organizations in Montgomery County.

<table>
<thead>
<tr>
<th>Months</th>
<th>Program Planning</th>
<th>Program Development</th>
<th>Program Implementation</th>
<th>Program Sustainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>• Coordination with other County agencies</td>
<td>• Write copy</td>
<td>• Distribute and post materials</td>
<td>• Measure success</td>
</tr>
<tr>
<td></td>
<td>• Coordination with partners external to County government</td>
<td>• Schedule programs</td>
<td>• Conduct seminars</td>
<td>• 2015</td>
</tr>
<tr>
<td>3-4</td>
<td></td>
<td>• Coordinate PSA</td>
<td></td>
<td>• 2017</td>
</tr>
<tr>
<td>5-18</td>
<td></td>
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<td></td>
<td>• 2025</td>
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<tr>
<td>Through 2025</td>
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</tr>
</tbody>
</table>
Summary:
Montgomery County must add stormwater management for runoff from untreated impervious acres, to the maximum extent practicable during the five year permit cycle. There is a significant amount of impervious acreage associated with non-residential properties which lacks adequate stormwater treatment. Stakeholder outreach is recommended in partnership with chambers of commerce, and business associations to educate landowners on BMPs that can be implemented to reduce runoff from private parking lots on these non-residential properties. Recommended Practices should include those in Chapter 5 of the MDE Design Manual which focus on harvesting and infiltrating rainwater as well as practices that mitigate large areas of imperviousness such as pavement removal or installation of porous pavement and sidewalks. Additional practices to consider include parking lot retrofits such as installation of conservation landscaping. Encouraging these practices in areas where parking lots simply cannot be removed or retrofitted will assist in stormwater pollution prevention.

The County even offers assistance through the RainScapes Rewards program with rebates to commercial, multi-family residential, and institutional (religious facilities, private schools).

Intended Outcome:
Behavior change throughout the county such that property owners prefer to treat and disconnect impervious cover.

Measures:
- Increase in parking lot impervious cover area treated or disconnected
- Increase in number of locations where parking lot treatment occurs each year
- Increase in area associated with permeable paving in parking lots each year

New Partnerships to Develop:
- Business organizations
- Private schools
- Places of worship
- Neighborhood and homeowner associations
- Athletic organizations
- Commercial real estate professionals

Key Messages
- Large impervious parking lots prevent groundwater recharge
- Large impervious parking lots cause precipitation to move rapidly when it comes off the lot, potentially causing damage to the property, neighboring properties and accelerated erosion in local streams
- Encouraging rainwater harvesting, green roofs, upland reforestation, soil compost amendments, rooftop disconnection, “green street” retrofits can all help groundwater recharge and assist in stormwater pollution prevention near parking lots, in areas where parking lots simply cannot be removed or retrofitted.

Existing Partnerships to Nurture:
- Watershed Organizations
- Chambers of Commerce
- Montgomery County Department of Economic Development
- Commission on Common Ownership of Communities (CCOC)
- Montgomery County Office of Community Partnerships
- Nonprofit Organizations such as Bethesda Green and Poolesville Green
- Local municipalities, as appropriate, such as City of Gaithersburg, City of Rockville, City of Takoma Park, etc.
**Delivery Techniques:**

Messages concerning the problems associated with large tracts of impervious surface that are caused by large parking lots should be delivered directly to landowners with large parking lots and those who patronize the organizations located on that land. Messages with solutions such as the commercial/schools/multifamily RainScapes program should also be delivered.

These techniques are presented in order of the simplest and most likely to be effective to those techniques that would marginally affect behavior change when used alone, but may have a significant affect when used cumulatively with the other listed techniques.

<table>
<thead>
<tr>
<th>Target Technique</th>
<th>Landowners with large parking lots</th>
<th>Tenants of properties with large parking lots</th>
<th>Patrons of organizations located on properties with large parking lots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct communication with green business program participants</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Direct contact with business groups representing targets</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>PSA campaign</td>
<td>*</td>
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<td>*</td>
</tr>
<tr>
<td>Sending Imperviousness grading system or posting online</td>
<td>*</td>
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<td>*</td>
</tr>
</tbody>
</table>

Prioritization should be given to those watersheds with specific imperviousness reduction goals: Anacostia, Cabin John, and Rock Creek

**Target Audience:**
- Landowners with large parking lots such as auto dealers, private schools, places of worship, professional office buildings, shopping malls, hospitals, or private clubs
- Tenants of properties with large parking lots to include those tenants who specify site design and build-out of property
- Patrons of organizations with private parking lots such as congregation members, club members, school students, business patrons and business employees
Approximate Program Start-Up Cost -- $41,500
Comprised of the following elements:

Pre-Program Planning
- Identify funding/sponsorship sources ($3,750)
- Secure funding from grantors, sponsors and county sources ($5,000)

Program Planning
- Coordinate with green business program team ($500)
- Develop a good distribution list of the groups that represent targets ($2,000)
- Coordinate with Public Affairs regarding the PSA campaign ($250)

Program Development
- Draft content and layout of messages to both green business program participants and groups that represent targets ($2,500)
- Print messages for where e-mail contact is not possible ($1,000 allowance)
- Research available PSA campaigns, identify preferred campaign, contact campaign owner to arrange for use of campaign ads, modify ads as needed ($10,000)
- Develop imperviousness grading system program ($5,000)

Program Implementation
- Distribute messages periodically to both green business program participants and groups that represent targets (2 hrs per month = $3,000 plus postage allowance of $500)
- Disseminate PSA campaign ($500)
- Implement imperviousness grading system program ($5,000)
- Measure Success ($2,500)

* This list of cost elements and approximate pricing was derived from experience with several advocacy non-profit organizations state-wide.

Delivery Technique Description
- Direct communication with green business program participants to include emails and newsletter inserts on the importance of installing BMPs in parking lots to reduce imperviousness county-wide.
- Direct contact with business groups representing targets to include presentations at periodic meetings and inserts for newsletters. Groups envisioned include Chambers of Commerce, interfaith councils, private school associations, hospital and medical associations.
- PSA campaign -- using a portion of one of the many stormwater PSA campaigns available nationwide, DEP would post the PSA on its website and disseminate its posting through a series of press releases
- An imperviousness grading system (A= little imperviousness; F = Large tracts of imperviousness) should be modeled after the Recycling Grading system created by Solid Waste services or Energy analytical tools in use by Utility companies to compare neighbors/neighborhoods energy use. Creates a presence for friendly competition.
**Timeline for Start-Up and Early Implementation:**
The following timeline was derived from the same experiences cited in development of the cost for this program.

- **Months 1-2**
  - Program Planning
    - Coordination activities
    - Research activities

- **Months 3-6**
  - Program Development
    - Message preparation
    - PSA research
    - Impervious grading program design

- **Months 7-18**
  - Program Implementation
    - Distribution and dissemination
    - Impervious grading program implementation

- **Through the Year 2025**
  - Program Sustainment
    - Measure success
      - 2015
      - 2017
      - 2025

**Implementation locations:**
- Commercial areas
- Industrial areas
- Private clubs and schools

**Measuring Program Success**
- Tracking and reporting area of parking lot impervious cover treated or disconnected
- Tracking and reporting the number of locations where parking lot treatment occurs each year
- Tracking and reporting area associated with permeable paving in parking lots each year
- Tracking and reporting trends in impervious grading system.