

APPENDIX D

PUBLIC EDUCATION AND INVOLVEMENT PLAN

PROGRAM ELEMENT #1 – PUBLIC EDUCATION / PUBLIC INVOLVEMENT

Reference

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Overview

Increase the knowledge of target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; change the behavior of target communities; and decrease the discharge of pollutants to the MS4 by engaging the public.

SWPP & MP Best Management Practices

Best Management Practice #PEI-1				
	New Castle County	DeIDOT	Co-permittees through IJA	Co-permittees Independently
Public Review and Comment	X	X	X	X
Measure: Yes / No.				
All Permittee Goal: Public review and comment on draft SWPP & MP.				

The permit requires the Permittees to develop and implement process for public review of and comment on draft SWPP & MP. The Permittees will utilize DeIDOT's "Virtual Workshop" to enable public review and comment on the draft SWPP & MP. This online tool will allow the Permittees to efficiently promote the plan and manage incoming comment from County residents.

Best Management Practice #PEI-2				
	New Castle County	DeIDOT	Co-permittees through IJA	Co-permittees Independently
Targeted Behaviors	X	X	X	X
Measure: Varies – see below.				
All Permittee Goal: Varies – see below.				

The Permit language calls on the Permittees to focus their efforts in eight areas:

- Public reporting of the presence of illicit discharges or improper disposal of materials, including floatables, into the MS4;
- The proper management and disposal of used motor vehicle fluids and household hazardous wastes;
- The proper management and disposal of grass clippings, leaf litter and domestic animal wastes;
- The proper use of water to limit excess pollutants from non-storm-water water discharges from activities such as washing cars and lawn irrigation, from entering the MS;
- The proper use, application, and disposal of pesticides, herbicides, and fertilizers by commercial and private applicators and distributors;
- Public participation events, such as stream clean-ups, drain stenciling, etc.;
- The proper maintenance of BMPs directed toward private and commercial property owners, and state or municipal entities responsible for maintenance; and.
- Opportunities for residential installation of LID practices, and the use of Green Technology BMPs that reduce runoff and mimic natural hydrology.

The following is an outline of how the Permittees are preparing to meet these requirements.

BMP #PEI-2a: All Targeted Behaviors

Over the term of the Permit, the Principal Permittees and their partners will undertake the following activities:

Maintain and Update Comprehensive Websites

The Principal Permittee's websites currently include information as follows:

- New Castle County – information for home owner associations such as general material about maintenance of ponds, registration for inclusion in the County's database which qualifies home owner associations (HOAs) for financial assistance for major repairs, and links to other web pages for additional information. The web site can be accessed at: <http://www2.nccde.org/specialservices/Stormwater/default.aspx>;
- DelDOT – numerous links such as the NPDES program and permit documents, monitoring programs, public education documents, and locations where inventorying is or will soon be conducted. Numerous white papers and copies of presentations are also available. The website can be accessed at: <http://www.deldot.gov/stormwater/>; and
- The Principal Permittees' websites will be updated on a periodic basis and will include the NPDES permit, SWPP & MP and subsequent annual reports, illicit discharge reporting / complain numbers, and public education events.

The Co-permittees will provide links from their own websites to appropriate locations on the New Castle County and DelDOT websites as well as summarize their participation and explain their role in the larger Phase I permit.

Press Releases

New Castle County and DeIDOT will distribute press releases on behalf of all Permittees for the term of the Permit. Press releases will be used to promote workshops and educational events, remind residents about hazardous waste disposal opportunities, to announce opportunities to receive technical and financial assistance to implement various best practices, etc.

Official Channels

The Principal Permittees produce email newsletters, maintain social media accounts and have other communications methods at their disposal. The Permittees will use all of these channels as appropriate.

BMP #PEI-2b: Public reporting of the presence of illicit discharges or improper disposal of materials, including floatables, into the MS4

New Castle County and DeIDOT will establish a new “It’s A Crime Hotline” and encourage residents to report illicit discharges via phone, text message, or smartphone app.

Twice during the permit period, the Principal Permittees will run extensive promotional efforts to alert residents to the existence of the hotline. The advertising content will educate residents about a range of illegal and polluting behaviors, all concluding with a call to action – report crimes to the hotline.

- The first campaign is tentatively planned to straddle the 2014 and 2015 fiscal years and will attempt to generate at least 500,000 impressions.
- The second campaign is tentatively planned to straddle the 2017 & 2018 fiscal years and will attempt to generate at least 500,000 impressions.

Following each promotional campaign, the Principal Permittees will survey county residents to measure their awareness of what does and doesn’t belong in storm drains, and how to report it when they observe somebody else illicitly discharging into the MS4.

In the event that the first attempt in 2014/2015 does not produce a statistically valid increase in public awareness, the partners will reevaluate the program for potential improvements for the second attempt in 2017/2018.

BMP #PEI-2c: The proper management and disposal of used motor vehicle fluids and household hazardous wastes

This BMP covers two distinct audiences. The target audience for motor vehicle fluid disposal is those who perform work on their own automobiles (a small portion of New Castle County residents do this). The target audience for household hazardous wastes, in contrast, is all residents.

Motor Vehicle Fluids

New Castle County, DeIDOT and the Co-permittees will compile a list of all public and private locations accepting used motor oil for recycling and make this information available online. The website will use a modern mapping feature to allow visitors to quickly load directions into their smart phones and navigate easily to the drop off site.

Twice during the permit period, the Principal Permittees will run promotional campaigns to alert county residents who change their own oil to this website. The Principal Permittees intend to use the following techniques:

- Advertising: Promote the recycling center webpage with Facebook ads aimed at users tagged as “auto mechanics”
- Public Relations: Circulate press releases to appropriate journalists in the area
- Direct Messages: Announce the hotline in county emails and on the county cable access channel.
- Word of Mouth: When individuals drop off their used motor oil for recycling, they will tell others who share their hobby

The Principal Permittees intend to measure the effectiveness of the website and promotional efforts as follows:

- Visit the website. Use Google Analytics web tracking software to track how many people visit the website
- Online “pop up” survey. Install a simple three-question popup survey onto this page to ask visitors how they heard about the page and related questions.

Household Hazardous Wastes

Working in cooperation with the Delaware Solid Waste Authority, New Castle County, DelDOT and the Co-permittees may create a county specific list of household hazardous waste events and drop off locations and make this information available online.

Twice during the permit period, the Principal Permittees may run promotional campaigns to alert county residents to the webpage and encourage them to bookmark it and subscribe for updates. The Principal Permittees may use the following techniques:

- Advertising: Promote the webpage with Facebook ads aimed at all residents
- Public Relations: Once the web page launches, circulate press releases to appropriate journalists in the area
- Direct Messages: Announce the hotline in county emails and on the county cable access channel.
- Word of Mouth: When individuals drop off their household hazardous wastes, they will tell others

The Principal Permittees intend to measure the effectiveness of the website and promotional efforts as follows:

- Web Visitors. Use Google Analytics web tracking software to track how many people visit the website
- Email Reminder Signups. Offer each resident the opportunity to sign up for free “reminder” emails to receive notification of drop-off events near them
- Popup Survey. Post a simple, three question “pop up” survey on the site to gather basic information from visitors

BMP #PEI-2d: The proper management and disposal of grass clippings, leaf litter and domestic animal wastes

Since a ban was instituted on the placement of yard wastes in refuse, multiple resources have become available to educate home owners on the best ways to dispose of yard wastes. The Principal

Permittees will develop strategies to disseminate this information more effectively. Similarly, there are several pet waste programs in existence and the Principal Permittees will develop approaches such that these programs have greater impact.

The Delaware Department of Transportation funds the “Livable Lawns” initiative, an educational program that works with homeowners and landscaping contractors to reduce the application of pesticides and fertilizer to lawns in New Castle County.

The Permittees will continue exploring options to expand the scope of the Livable Lawn initiative to cover grass clippings and leaf litter. In addition, the Permittees will continue exploring options to work with local nonprofit organizations to expand their existing “pet waste” efforts.

BMP #PEI-2e: The proper use of water to limit excess pollutants from non-storm-water water discharges from activities such as washing cars and lawn irrigation, from entering the MS4

The Principal Permittees will seek to address the car washing activities from not-for-profit youth groups, such as scout troops and marching bands.

To help scout troops, marching bands, and other youth groups conduct their car wash fundraisers in an environmentally responsible manner, the Permittees will consider establishing a “loaner” storm drain stopper program and associated educational materials. The Permittees intend to use the following techniques to promote this program to schools, churches, and other likely car wash organizers:

- Advertising: Promote the webpage with Facebook ads aimed at residents under the age of 25
- Public Relations: Once the web page launches, circulate press releases to appropriate journalists in the area
- Direct Messages: Announce the webpage in county emails and on the county cable access channel.
- Word of Mouth: When volunteer groups wash cars using suggested best management practices, they will tell others about their experience.

The Principal Permittees will seek to measure the effectiveness of the website and promotional efforts as follows:

- Web Visitors. Use Google Analytics web tracking software to track how many people visit the website
- Loaner Requests. Tally the number of loaner requests the Principal Permittees receive, and invite those who request the storm drain stopper to share how they heard about the program
- Popup Survey. Post a simple, three question “pop up” survey on the site to gather basic information from visitors

The Permittees will continue exploring options to expand the scope of the Livable Lawn initiative to cover lawn irrigation.

BMP #PEI-2f: The proper use, application, and disposal of pesticides, herbicides, and fertilizers by commercial and private applicators and distributors

The Principal Permittees will promote adoption of this BMP by advertising, mailings to existing contact lists, postings on web sites, coordinating with others to encourage participation, organizing workshops, and offering technical and financial assistance as appropriate. The Principal Permittees

will also continue to support ongoing initiatives, such as Delaware Livable Lawns, that encourage adoption of this BMP.

The Permittees will continue exploring options for continuing the work of the Livable Lawn initiative on these areas.

BMP #PEI-2g: Public participation events, such as stream clean-ups, drain stenciling, etc.

There are six organizations within New Castle County that currently organize public participation events:

- Delaware Nature Society
- Red Clay Valley Association
- Christina Conservancy
- Partnership for the Delaware Estuary
- Delaware Department of Transportation Adopt-A-Highway
- White Clay Creek Wild & Scenic Program

The Principal Permittees will offer to assist these ongoing efforts as follows:

- Posting announcements of upcoming events on the permittees' website
- Circulating announcements of upcoming events via permittees' official channels (email newsletter, public access channel, etc.)
- Displaying literature for these organizations on brochure racks at public facilities
- Providing in-kind or direct funding as budgets allow

In return for promotional and in-kind assistance, the Principal Permittees will ask these groups to provide the following information to include in future MS4 reports:

- Estimates on the number of participants at each event the permittees support
- Estimates on the advertising reach of promotional efforts for each event the permittees support

New Castle County has provided labor and equipment for the annual Christina River Cleanup in the past and will consider continuing support in the future. Elsmere and Bellefonte have also placed medallions on storm inlets and will replace as needed. The other Co-permittees will consider activities such as these in future years.

BMP #PEI-2h: The proper maintenance of BMPs directed toward private and commercial property owners, and state or municipal entities responsible for maintenance

The Principal Permittees currently conduct regular inspection programs and offer educational seminars to properties with BMPs in place.

BMP #PEI-2i: Opportunities for residential installation of LID practices, and the use of Green Technology BMPs that reduce runoff and mimic natural hydrology

The Permittees will continue exploring options to expand the scope of the Livable Lawn initiative to cover rain barrels, rain gardens, pervious patios, and related items.

BMP #PEI-2j: Holding two public workshops each year

The Principal Permittees will organize two workshops per year to promote the various best management practices.

Year	Workshop #1	Workshop #2
2013	Stormwater Management Maintenance and Inspections Program for Residential and Commercial facilities	BMP Maintenance for Residential (or Commercial) Property Owners/Managers
2014	Stormwater Management Maintenance and Inspections Program for Residential and Commercial facilities	BMP Maintenance for Residential (or Commercial) Property Owners/Managers Car washing best practices for not-for-profit youth groups
2015	Stormwater Management Maintenance and Inspections Program for Residential and Commercial facilities	BMP Maintenance for Residential (or Commercial) Property Owners/Managers
2016	Stormwater Management Maintenance and Inspections Program for Residential and Commercial facilities	BMP Maintenance for Residential (or Commercial) Property Owners/Managers Car washing best practices for not-for-profit youth groups
2017	Stormwater Management Maintenance and Inspections Program for Residential and Commercial facilities	BMP Maintenance for Residential (or Commercial) Property Owners/Managers Car washing best practices for not-for-profit youth groups

Measurable Goals

Goals are established as follows for number of impressions and the before and after surveys.

Impressions

BMP	Target Audience	Annual # of Impressions	Impression Method
#1 Illicit Discharges	<ul style="list-style-type: none"> • 546,076 County Residents • 422,117 Adults 	250,000	<ul style="list-style-type: none"> • Web Advertisements • News Coverage • Official Government Channels • Open Air Advertising • DelDOT road signs

#2 Household Hazardous Waste	<ul style="list-style-type: none"> • 199,922 Households 	10,000	<ul style="list-style-type: none"> • Web Advertisements • News Coverage • Official Government Channels •
#3 Yard and Pet Waste	<ul style="list-style-type: none"> • 149,327 Single Family Homes • 38,739 Households with Dogs • 90 Pet-Related Service and Retail Businesses 	1,000	<ul style="list-style-type: none"> • Web Advertisements • News Coverage • Official Government Channels • Open Air Advertising • Phone Calls • Email • Direct Mail
#4 Water Discharge	<ul style="list-style-type: none"> • Unknown # of youth groups • 110,822 “green Thumbs” 	1,000	<ul style="list-style-type: none"> • Web Advertisements • News Coverage • Official Government Channels • Open Air Advertising • Phone Calls • Email • Direct Mail
#5 Lawn Chemicals	<ul style="list-style-type: none"> • 110,822 “green Thumbs” • ~300 Lawn and Garden Service and Retail Businesses 	500	<ul style="list-style-type: none"> • Web Advertisements • News Coverage • Official Government Channels • Open Air Advertising • Phone Calls • Email • Direct Mail
#6 Event Participation	<ul style="list-style-type: none"> • 546,076 County Residents • 422,117 Adults • ~9 nonprofit partners 	1,000	<ul style="list-style-type: none"> • Web Advertisements • News Coverage • Official Government Channels • Open Air Advertising • Phone Calls • Email

			<ul style="list-style-type: none"> • Direct Mail
#7 Maintain Existing BMPs	<ul style="list-style-type: none"> • 286 homeowner associations • 666 commercial and industrial BMP owners 	1,000	<ul style="list-style-type: none"> • Phone Calls • Email • Direct Mail
#8 Install Low Impact Development	<ul style="list-style-type: none"> • 55,309 Home Improvement Enthusiasts • 37,743 “Do It Yourself” Enthusiasts • ~300 Lawn and Garden Service and Retail Businesses 	1,000	<ul style="list-style-type: none"> • Web Advertisements • News Coverage • Official Government Channels • Open Air Advertising • Phone Calls • Email • Direct Mail
Total:		265,500	

Before and After Surveys

The Principal Permittees intend to conduct one countywide “before and after” survey to evaluate the effectiveness of the “It’s a Crime Hotline” effort, as well as multiple smaller scale surveys to evaluate the effectiveness of each targeted outreach effort individually.

BMP	Target Audience	Baseline Survey method	Post Outreach Survey Method
Public reporting of the presence of illicit discharges or improper disposal of materials, including floatables, into the MS4;	All adult residents	Random dial telephone survey to 400 residents (5% margin of error)	Random dial telephone survey to 400 residents (5% margin of error)
The proper management and disposal of used motor vehicle fluids and household hazardous wastes;	Those who repair their own cars All adult residents		Online “pop up” survey on appropriate county website
The proper management and disposal of grass clippings, leaf litter and domestic animal wastes;	Homeowners with single family homes and yards Pet owners	TBD	TBD

The proper use of water to limit excess pollutants from non-storm-water water discharges from activities such as washing cars and lawn irrigation, from entering the MS;	Homeowners with single family homes and yards	TBD	TBD
The proper use, application, and disposal of pesticides, herbicides, and fertilizers by commercial and private applicators and distributors;	Homeowners with single family homes and yards Commercial lawn care providers	TBD 2,500	TBD Evaluation Forms
Public participation events, such as stream clean-ups, drain stenciling, etc.;	All Adult Residents		Online and paper surveys at events
The proper maintenance of BMPs directed toward private and commercial property owners, and state or municipal entities responsible for maintenance; and.	Commercial and residential BMP owners	Pre-survey when promoting annual workshop	After-survey upon completion of the annual workshop
Opportunities for residential installation of LID practices, and the use of Green Technology BMPs that reduce runoff and mimic natural hydrology.	Homeowners with single family homes and yards Commercial lawn care providers	TBD	TBD