





SPC's Water Resource Center Workshop

Local Perspective On Addressing MS4 Requirements



August 23, 2016



Welcome

Tim Schutzman, P.E.

Engineering & Environmental Services

Waterworks Coordinator

724-776-4806 x 1163

Tim.Schutzman@cranberrytownship.org



Stormwater Program

Township's develop comparable ACT 167 (1993 ~1994)

- Updated Stormwater Ordinance
- Reduced Flooding Problems
- Hired a Hydrologist
- Push Back from Developers
- 100% Self Funded



Stormwater Runoff Management

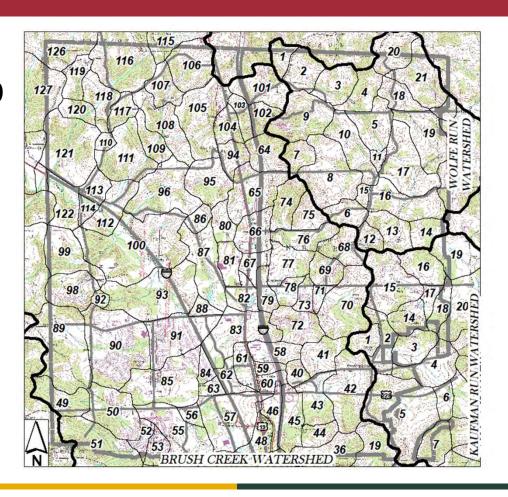
Township Release Rate Map

Watershed

- 1. Brush Creek (127 Subwatersheds)
- 2. Kauffman Run (20 Subwatersheds)
- 3. Wolfe Run (21 Subwatersheds)

Release Rate

Ranges from 50% to 100%





Stormwater Program

Municipal Separate Storm Sewer System (MS4)

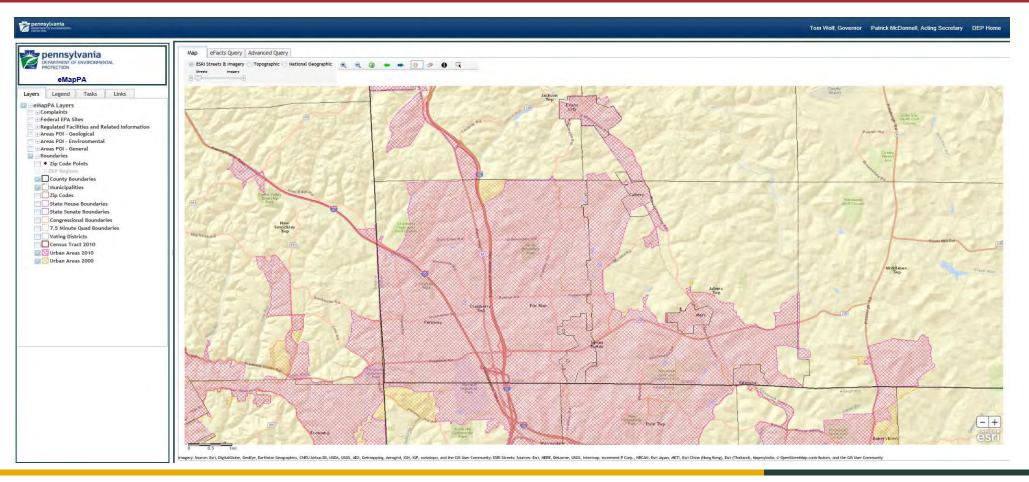
Updated Ordinance 2003

Butler County Approved Act 167

Updated Ordinance 2011

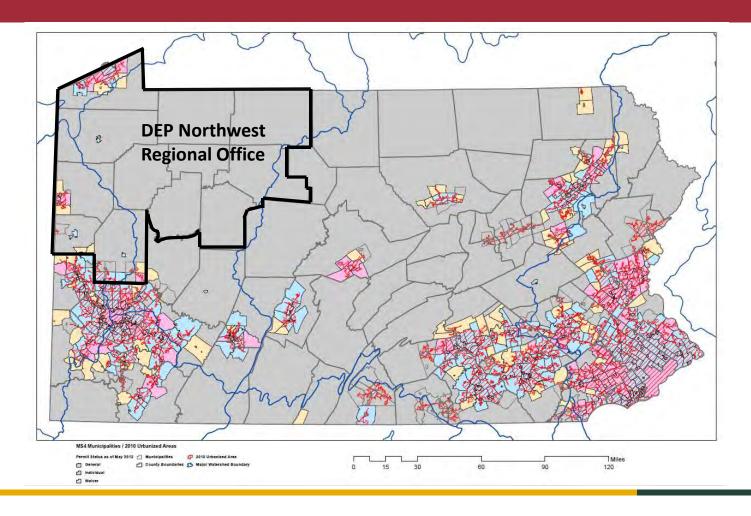


2010 Census - Urbanized Area





2010 Census - Urbanized Area





Municipal Separate Storm Sewer System (MS4)

Minimum Control Measure #1

Public Education and Outreach on Stormwater Impacts



MCM#1 Public Education and Outreach







Cranberry Township



MCM#1 Public Education and Outreach

Federal Regulations

Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff (40 CFR Part 122.34(b)(1)(i)).



Public Education and Outreach on Stormwater Impacts

Department of Environmental Protection

- Best Management Practices (BMPs) and Measurable Goals are to be implemented and achieved:
 - 1. Develop, implement and maintain a written Public Education and Outreach Program
 - 2. Develop and maintain lists of target audience
 - 3. You must annually publish at least one issue of a newsletter, a pamphlet, a flyer, or a web site that includes general stormwater educational information
 - 4. Distribute stormwater educational materials



Public Education and Outreach on Stormwater Impacts

- Target Audience Groups
 - Township Residents
 - Home Owners Association
 - School Students
 - Business Owners
 - Contractors
 - Municipal Employees



Cranberry Township Newsletter



Fugitives Wanted: Tips Gratefully Accepted

currently

people

who have

eluded

capture

Arrest warrants issued by District Justices are outstanding on more than 40 individuals for crimes committed in Cranberry Township. They range from writing bad checks and shoplifting to



by local police and are likely to extend their patterns of crime until they've been apprehended.

So in February, Cranberry police began plastering the fugitives' names, faces, ages, criminal charges, and last known at cranberrytownship.org/wanted. None of the warrants are for residents of Cranberry Township, but most come from nearby communities, and their identities are available to anyone, anywhere, simply by doing an online search.

Cranberry police hope that people who recognize a fugitive will either call 9-1-1 or their local police department

with tips concerning the person's whereabouts. Callers do not have to identify themselves, nor will they be subpoenaed as witnesses in court: already been compiled.

No rewards are currently posted for the people being sought on Cranberry's Ten Most Wanted list, If you have information about any of their whereabouts, don't approach or attempt to apprehend them - just provide police with any information they can use, either by calling 9-1-1 or by email at: tips@cranberrytownship.org. and let them do the rest. ~

On the law. If you've seen any of these people, they're all wanted for crimes committed in Cranberry Check out the Township's website for their names, photos, crimes and last known mailing addresses. Then call 9-1-1 with any tips that can help police apprehend them.

What Should I Do With My Local Earned Income Tax Return?

Pennsylvania's procedure for collecting certain local taxes changed to withhold earned income

all their employees. Berkheimer Tax Administrators - Cranberry's income tax collector - now collects the tax from those employers rather than from employees. However, residents must continue filing their final individual tax returns with Berkheimer - either electronically or by mail. Return forms

are available online at www.hab-inc.com Questions about your earned income tax, as well as your \$10 Seneca Valley Occupation Tax and \$52 Local Services Tax should be directed to Berkheimer's Butler County office at 724-282-0377.

► Inside This Issue:

Public Safety
2-1-1 Phone Service
Engineering
Supervisor's Commentary
Tech Company Profile
Thomson Business Park
Fire Company
in Business 6

Varn Bombing Special insert Parks & Recreation Kids Caystle Playgroun Public Works.



ENGINEERING

Improving On Nature: Cranberry's Kinder, Gentler Stormwater Management Program

Stormwater cascades down from higher elevations, So do stormwater

In the early '70s, a flood of public concern about air and water pollution led to formation of the federal Environmental Protection Agency. its overflow poured onto the states, where it gave rise to Pennsylvania's Department of Environmental Protection. That, in turn, spilled over onto Butler County's 2011 stormwater management plan. And implementation of the County plan's eventually trickled down onto Cranberry Township.

Rain, of course, is a naturally occurring phenomenon. Rainwater has percolated into soil and run off into streams since the beginning of time. But just because something is natural doesn't mean it's harmless; Mother Nature can be ruthless. Surging stormwater,

Just because something is natural doesn't mean It's harmless

for example, leads to floods which can sweep away everything in their path. And today, with America's largely urbanized population, intensive development along flood plains, sprawling swaths of pavement, and extensive use of hazardous chemicals. the potential harm from uncontrolled stormwater is greater than ever. So regulations have been enacted to minimize the damage - regardless of whether it originated from natural or human activity.

As a result, Cranberry is now working diligently to administer the County's stormwater plan provisions within its own municipal boundaries. Even though the plan's technical requirements are

quite detailed, its goals are fairly straightforward: decrease flood damage, expand recreational opportunities, enhance fishing, improve well water upgrade public health, attractive appearance.

instruments for achieving those goals stems from the Township's ability to issue

permits for new construction based on plans which include, to the greatest extent practical, best practices for managing stormwater. That authority, in turn, derives from Cranberry's compliance with federal legislation detailing those practices, which carries the unwieldy name of "Federal national Pollutant Discharge Elimination System Phase II. Stormwater Discharges From Small Municipal Separate Storm Sewer Systems General Permit" - or MS4, for

Exercise control

off a site."

short. Granberry is one of only three Butler County communities obliged to follow its requirements.

> Staff engineer Tim Schutzman is the Township's point man in the implementation of MS4, "When developers submit plans. I review them to make sure they meet the stormwater explained. "That includes the release rate of water from the site, the control of water volume from the site, whether they provide for groundwater absorption on their site, and water quality controls from various pollutants on their site. We control for thermal issues, sediment, pollutants, and nutrients - they're all factors in stormwater quality coming

It's a big task, and some of its provisions - particularly as they relate



consequences. So does the lack of it. After a heavy rainstorm, this home in Shaler has to deal with those

to smaller projects, such as singlefamily homes built outside of any subdivision - are new ones. However unlike some other communities in the region, Cranberry has had a history of taking stormwater seriously. It has mapped its watersheds and tracked its stormwater outflows in exquisite detail. And it enacted local stormwater controls more than 20 years ago. But it didn't:

The Township created a stormwater enoted model back in 1996 which went well beyond what was required." Schutzman said. *People often worry that new development will cause unusual water flows or flooding to their property. We want to assure them that we've already looked at improving how stormwater is being controlled on new development sites to minimize its impact on adjacent property owners."

Managing stormwater effectively is more than just an engineering issue, however; it's also an educational one - raising public awareness about why people should even bother caring about their community's rainwater drainage system. Most residents take it for granted, and the better a system works, the less they notice it. Cranberry's is working just fine. So raising its public profile without needlessly raising alarm, is presenting local officials with an intriguing communication challenge.



Handouts Available at the Municipal Building



 Water Storage — Water that is stored on the earth's surface, such as oceans, lakes, and streams.

 Evaporation—A process in which water is heated and becomes a gas.

Cloud Storage—Water suspended in the air.

 Transpiration—The process in which water vapor moves through plants into the air.

Precipitation—Water that returns to the earth as rain, snow, or hail.

 Percolation—The process in which water moves downward through openings in the soil.

 Groundwater—Water that is underground, as in a spring or a well. American Water Works Association ac2008 American Water Works Asset Cathlee No. 7/0332

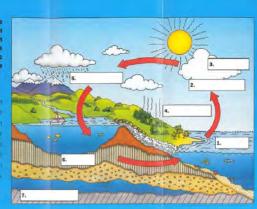
Printed on Recycled Paper

Let's
Learn
About...

The Water Cycle

Match the Correct Term for Each Stage of the Hydrologic (Water) Cycle

Percolation
Water Storage
Transpiration
Groundwater
Cloud Storage
Precipitation
Evaporation





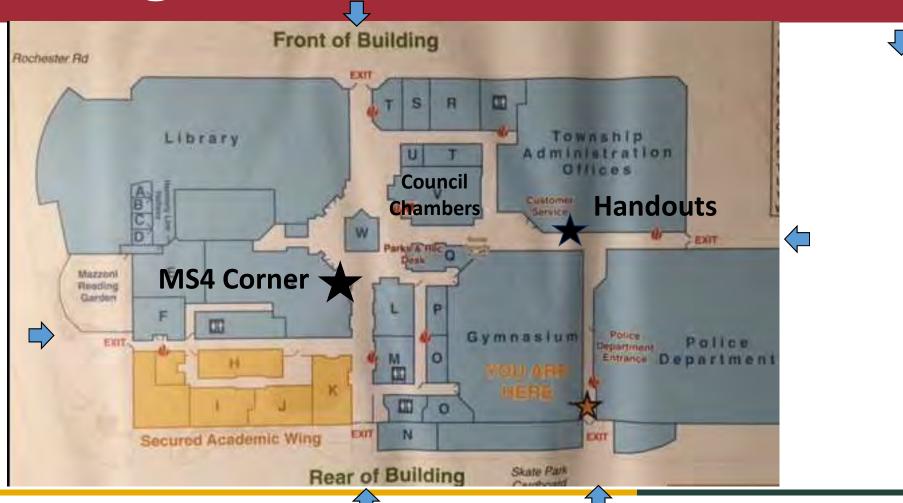
Handouts Available at the Municipal Building







Target Location For Information





Partnership Program with Haine Middle School

Students assist
Township staff with
Public Presentation





Promote Safely Disposing of Household Chemicals

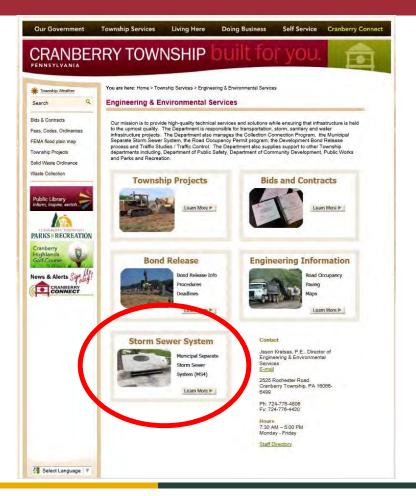






Cranberry Township Web Site

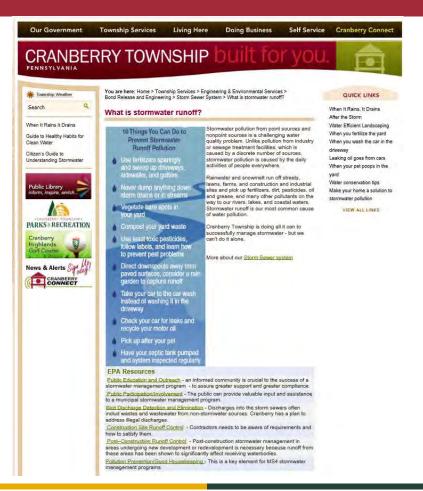






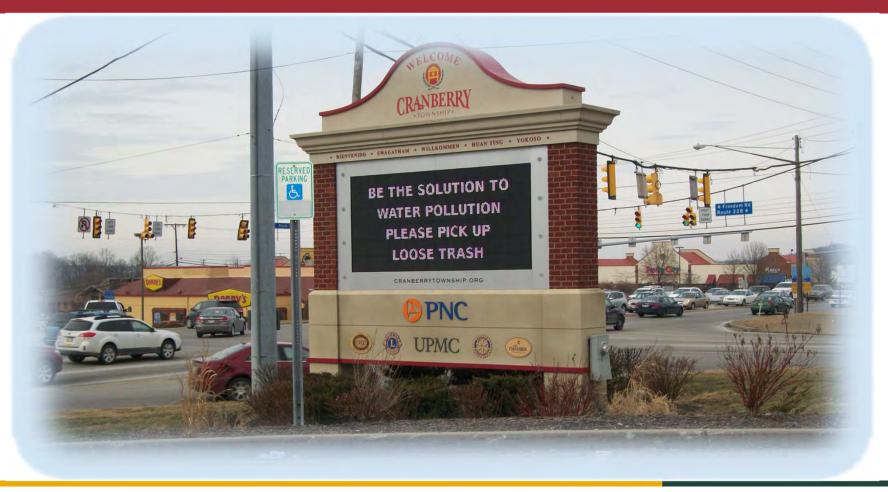
Cranberry Township Web Site







Notice on Digital Sign at Intersection of S.R.19 & S.R. 228





Notice on Digital Sign at Intersection of S.R.19 & S.R. 228

3/16- 3/23
BE THE SOLUTION TO
WATER POLLUTION
PLEASE PICK UP
LOOSE TRASH

3/24- 3/30 CRANBERRY DESERVES TRASH-FREE STREAMS NO TRASH LEFT BEHIND



Dumpster Management Handout





How to manage your Commercial Dumpsters

CRANBERRY TOWNSHIP built for you.



Dumpster Management?

Almost every business generates waste and temporarily stores it on-site. Many businesses have dumpsters, compactors, or refuse bins. These containers are typically kept behind buildings or in alleys, where they are often out of sight and out of mind.

Dumpster runoff can contain litter, grease, dangerous chemicals and other forms of waste!



What is Stormwater?

Stormwater is water from rain or melting snow that does not soak into the ground but runs off into waterways. Polluted runoff degrades our lakes, rivers, wetlands and other waterways. Polluted stormwater can harm fish and wildlife populations, kill native vegetation, four drinking water, and make recreational areas unsafe and unpleasant.

Be a Proactive Watershed Hero, If you notice that your Dumpster is leaking, contact your refuse hauler and ask them to switch out the container!

Cranberry Township Ordinance 2004-353

The storage of all municipal waste shall be practiced so as to prevent the attraction, breeding or harborage of insects or rodents and to prevent conditions which may create potential hazards to public health or which may create fire and other safety hazards, odors, unsightliness, or public nuisance. Any person accumulating or storing municipal waste on private or public property shall insure the sanitary and legal disposal of such waste...



Leakproof, covered garbage containers are required under municipal code §5-224.

Best Management Practices

Inspect dumpsters daily, look for spills or leakage. Clean up any spills using dry methods, spill kits, kitty litter, etc.

Repair or replace leaking dumpster

Increase receptacle service frequency if dumpster is routinely overloaded

Keep lid on dumpster closed to keep rain water out

Do not place liquid food wastes in the dumpster

Train employees on proper disposal techniques

Keep dumpster area swept clean

Dumpsters and other waste containers located outside <u>must</u> be kept in an approved secure enclosure!



Provide Educational Material With Building Permits

Don't Let Storm Water Run Off With Your Time and Money!

What the Construction Industry Should Know About Storm Water In Our Community What is Storm Water?

The construction industry plays an important role in improving our community's quality of life by not only providing new development, but also protecting our streams and rivers through smart business practices that prevent pollution from leaving construction sites.

Storm water runoff leaving construction sites can carry pollutants such as dirt, construction debris, oil, and paint off-site and into storm drains. In our community, storm drains carry storm water runoff directly to local creeks, streams, and rivers with no treatment. Developers, contractors, and homebuilders can help to prevent storm water pollution by taking the following steps:

- 1. Comply with storm water permit requirements.
- 2. Practice erosion control and pollution prevention practices to keep construction sites "clean."
- 3. Conduct advanced planning and training to ensure proper implementation on-site.

The remainder of this fact sheet addresses these three steps.

Storm Water Permit Requirements for Construction Activity

Planning and permitting requirements exist for construction activities.

These requirements are intended to minimize storm water pollutants leaving construction sites.

- Pennsylvania's Erosion and Sediment Pollution Control Program (25 Pa. Code, Chapter 102) requires Erosion and Sediment Control Plans for all earth disturbing activities.
- The National Pollutant Discharge Elimination System (NPDES) Permit Program (25 Pa. Code, Chapter 92) requires that construction activities disturbing greater than one acre submit a Notice of Intent for coverage under a general NPDES permit.



Storm water is water from

precipitation that flows across the

or when snow and ice melt. The

water seeps into the ground or

drains into what are commonly

called storm sewers. These are the

low points on the sides of streets.

Collectively, the draining water is

called storm water runoff.

drains you see at street corners or at

ground and pavement when it rains

Knowing your requirements before starting a project and following them during construction can save you time and money, and demonstrate that you are a partner in improving our community's quality of life. For more information about these programs, contact your local county conservation district office or the Department of Environmental Protection.

Erosion Control Practices:

- · Perimeter controls (e.g. silt fence)
- Sediment traps
- Immediate revegetation
- · Phased, minimized grading
- Construction entrance
 Protection of streams and drainage ways
- · Inlet protection



An Ounce of Prevention

Rain that falls onto construction sites is likely to carry away soil particles and other toxic chemicals present on construction sites [oil, grease, hazardous wastes, fuel). Storm water, if not properly managed, carries these pollutants to streams, rivers, and lakes. Erosion and sediment control practices can serve as a first line of defense,

Pollution Prevention Practices:

- Designated fueling and vehicle maintenance area away from streams.
- · Remove trash and litter.
- Clean up leaks immediately.
- Never wash down dirty pavement.
- Place dumpsters under cover,
- · Dispose of all wastes properly.

minimizing clean up and maintenance costs, and the impacts to water resources caused by soil erosion during active construction. Erosion controls can reduce the volume of soil going into a sediment control device, such as a sediment trap, therefore, "clean out" frequencies are lower and maintenance costs are less. When possible, divert water around the construction site using berms or drainage ditches.

In addition, use pollution prevention and "good housekeeping measures" to reduce the pollution leaving construction sites as well. This can be as simple as minimizing the pollution source's contact with rainwater by covering it, maintaining a "clean site" by reducing trash and waste, and keeping vehicles well maintained.

The Best Laid Plans

Plans such as erosion and sediment control plans and storm water pollution prevention plans are important tools for outlining the erosion control and pollution prevention practices that you will use to manage storm water runoff prior to breaking ground. Developing good plans allows for proper budgeting and planning for the life of the project. Proper installation and maintenance of erosion and storm water controls is essential to a plan that works. Training for on-site staff helps to ensure the proper installation and maintenance of erosion notitols and pollution prevention practices. Inspect controls and management techniques regularly to ensure they are working, especially after storm events. If polluted storm water is leaving the site, you may need to repair or add additional storm water controls.



The Bigger Storm Water Picture

Your community is preventing storm water pollution through a comprehensive storm water management program. This program addresses storm water pollution from construction, but it also deals with new development, illegal dumping to the storm sewer system, and municipal operations. It will also continue to educate the community and get everyone involved in making sure the only thing that storm water contributes to our streams is . . . water! Contact your community or the Pennsylvania Department of Environmental Protection for more information about storm water management.

For more information:

Pennsylvania Association of Conservation District's:
http://www.pacd.org/default.html

Pennsylvania Handbook of Best Management Practices for Developing Areas:
http://www.pacd.org/products/bmp/bmp_handbook.html

Storm Water Manager's Resource Center:
http://www.stormwatercenter.net

Pennsylvania Department of Environmental Protection:
http://www.dep.state.pa.us



Employee One Stop - Communication



StaffLines



A visit to the Brush Creek
Plan



Learning more about engineering and recycling

Successful E-recycling event



Steve Mahoney a Seneca Valley senior and a group of his friends unloaded over 28,000 pounds of electronic equipment at the April electronic recycling event. Steve organized the volunteers as part of his senior project.

Lorin Meeder (Environmental Projects Coordinator) coordinates the two annual e-recycling events. Andrew Clemens (I.T.) and his son Seth also pitched in to help people

who drove through and dropped off unwanted equipment.

Hi-Tech Recyclers efficiently packed and loaded everything in 2 truckloads.

The next free electronic recycling event will be Sat., September 17 at the Public Works Operations Facility.



Employee Training

- Attend Workshops (DEP, SPC,PWEA)
- Webinars
- Attend Conferences (PSATS, 3 Rivers Wet Weather)
- In House Training Program with Public Works



Municipal Separate Storm Sewer System (MS4)

Minimum Control Measure #2

Public Involvement / Participation



MCM #2 Public Involvement/ Participation

Federal Regulations

Comply with applicable state and local public notice requirements when implementing a public involvement / participation program (40 CFR Part 122.34(b)(2)(i)).



Public Involvement / Participation

Department of Environmental Protection

- Best Management Practices (BMPs) and Measurable Goals are to be implemented and achieved:
 - 1. Develop, implement and maintain a written Public Involvement & Participation Program
 - 2. Prior to adoption of any ordinance by this General Permit, provide adequate public notice and opportunities for public review, input and feedback
 - 3. Regularly solicit public involvement and participation from the target audience groups
 - Conduct one public meeting per year



Public Involvement / Participation

- How to get the public involved?
 - Target Audience Groups
 - Township Residents
 - Business Owners
 - Municipal Employees
 - School Students
 - Home Owners Association



Adopt-A-Roadway Program

Since 1997

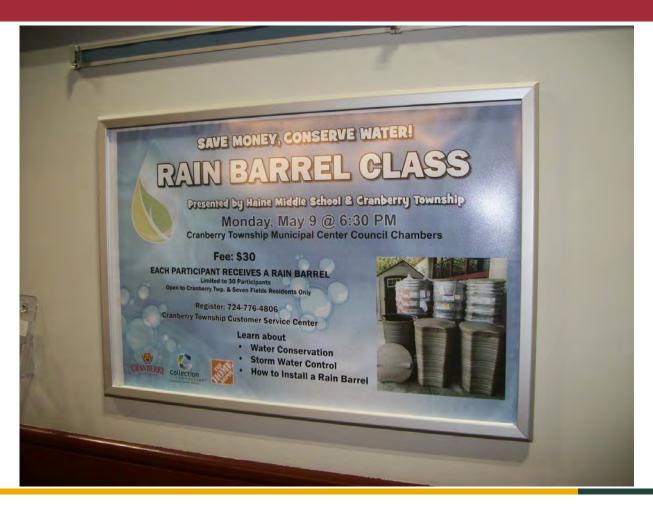


2016 Still Going Strong!!

- 1. Boy Scout Troop 403 Ehrman /Old Ehrman Road
- 2. Boy Scout Troop 404 Peters Road
- 3. BC#- Cranberry Center Exe. Dr./Thomson PK Dr
- 4. Church of JC of Latter-Day Saints Haine School Rd.
- 5. Crossroad Church Unionville & Ogleview Roads
- 6. Cranberry Women's Club Progress Avenue
- 7. The Davis Family Freshcorn Road
- 8. Karen & Gary Gajdzik Hope & Woodlawn Roads
- 9. Grace Church Marshall Road
- 10. Graf Family Goehring Road
- 11. Hardman Family Glen Rape Road
- 12. Herbert, Rowland, Grubic (HRG) Graham School Rd.
- 13. The Lawver Family Darlington Road
- 14. Lowe's Mars Road
- 15. Oak Grove Lutheran Church Powel Road
- 16. Pindroh Family Burke Road
- 17. Plains United Presbyterian Church Bear Run Road
- 18. Manheim Pittsburgh Unionville Road
- 19. Refresh Dental Commonwealth Drive
- 20. Young Bros Tae Kwon Do Powell Road
- 21. Volunteer Ambulance Corps North Boundary Road
- 22. Zona, Lou CPA Old Route 19



Rain Barrel Classes





Rain Barrel Classes

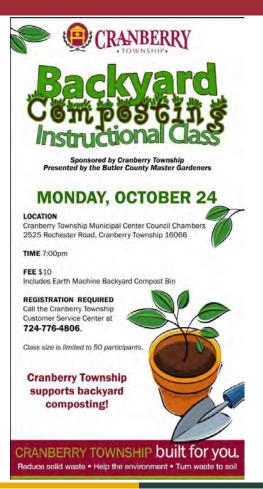


Sponsored by Home Depot and Fiskars Supported by Cranberry Township



Sponsor Composting Class







Composting Program for Employees







Public Involvement / Participation

Public Meeting

To

Solicit Public Involvement



Partnership Program with Haine Middle School

PROTECTING OUR WATERSHED

• BY: HAINE MIDDLE SCHOOL

PURPOSE STUDENTS





Public Presentation with Haine Middle School



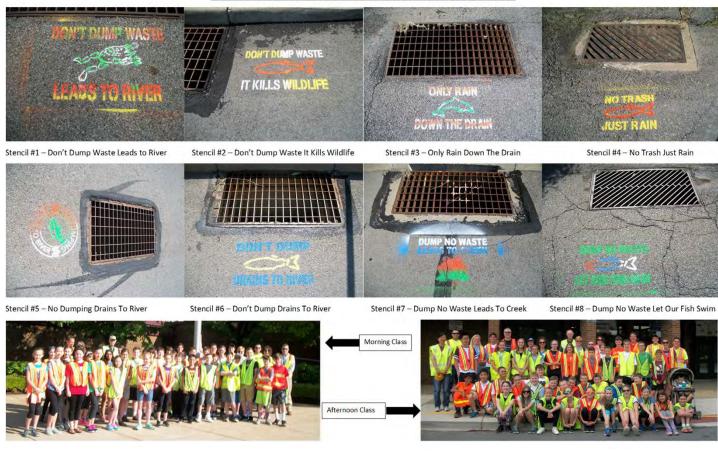








May 23 2016 Stencils Program with Haine Middle School Students







724 | 776 | 4806 | 724 | 776 | 4420 | CranberryTownship.org

Haine Middle School Stencil Program - Monday May 23, 2016

Morning Session

8:30 Place Signs at entrance into the BelleVue Park Development

Arrive at Haine Middle School (Road in front of Building)

Students and Parents Exit Building for Stencil Training

Training Class Split into two groups

9:15 Leave Haine Middle School and walk over to Belle Vue Park

9:20 to 11:00 Perform Stenciling on roads at inlets identified on handouts

11:00 Return to Haine Middle School

12:00 Place Signs at entrance into the Creekwood Commons Development

12:15 Arrive at Haine Middle School (Road in front of Building)

12:30 Students and Parents Exit Building for Stencil Training

Training Class Split into two groups

12:45 Leave Haine Middle School and walk over to Creekwood Commons

12:45 to 2:30 Perform Stenciling on roads at inlets identified on handouts

2:30 Return to Haine Middle School

Groups of 5 Tasks

1. Paint Carrier (Paints first then Stencil)

2. Stencil Carrier

3. Backstop Carrier

4. Broom Carrier

5. Flag & Cone Carrier Adult Carriers Garbage Bag & Paper Towels

Groups of 6 Tasks

1. Paint Carrier (Paints First then Stencil)

2. Stencil Carrier

3. Backstop Carrier

4. Broom Carrier

5. Cone Carrier

6. Flag Carrier

Adult Carriers Garbage Bag & Paper Towels

2525 Rochester Road | Suite 400 | Cranberry Township | PA | 16066

How to Stencil Step 1



Use a wire brush or whisk broom to sweep dirt away from the stencil area.

Step 2



Position stencil next to the storm drain inlet where message will be most visible. Avoid areas where dirt and leaves will collect and cover the message.

Step 3



Consider using a cardboard box, cut open to form a border around the stencil to protect against overspray.

Step 4



Spray paint the message. Two light coats are better than a thick single coat. Stenciled messages last for approximately two years on a paved

Step 5



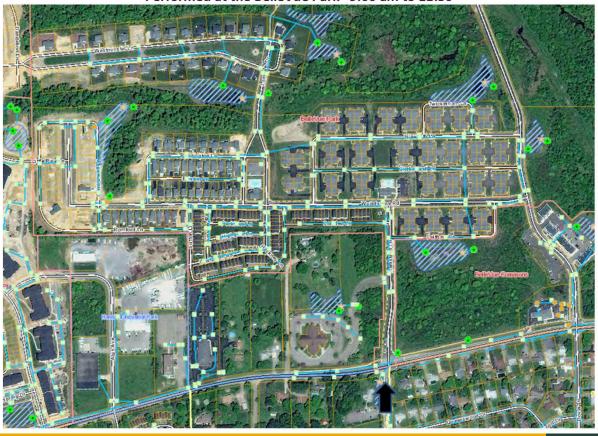
While some team members are stenciling, have others visit local residents or businesses to hand out fact sheets or door hangers explaining where the storm drains go.



clean up. Place stencils in a cardboard folder for transportation. Open folders and lay flat in the sun to dry. When paint is for store the stencils in their folder where they will be ready for future use for your next stencil day.



Cranberry Township / Haine Middle School Stencil Program (May 23, 2016)
Performed at the BelleVue Park 9:00 am to 11:30





Cranberry Township / Haine Middle School Stencil Program (May 23, 2016)

Performed at the Creekwood 12:30 am to 3:00

57 Inlets



Cranberry Township / <u>Haine</u> Middle School Stencil Program (May 23, 2016)

Performed at the Creekwood Commons 12:30 am to 3:00

29 - Inlets











Environmental Partners

Youtube Video from Cranberry Township Website

Haine Middle School Students - Work with MS4 Program

Butler County Conservation District

2014 Outstanding Youth Award





STEM FEM – Storm Drain Stenciling Event

Science, Technology, Engineering and Math (STEM)

STORM DRAIN STENCILLING EVENT 5/12/2015

GRAHAM PARK DRIVE





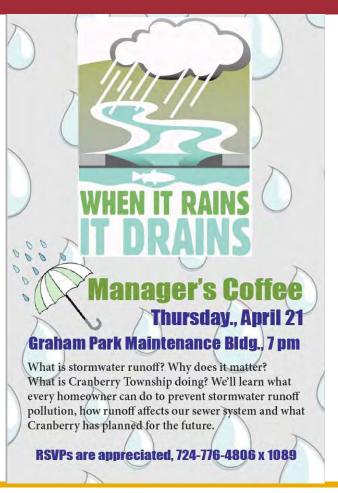


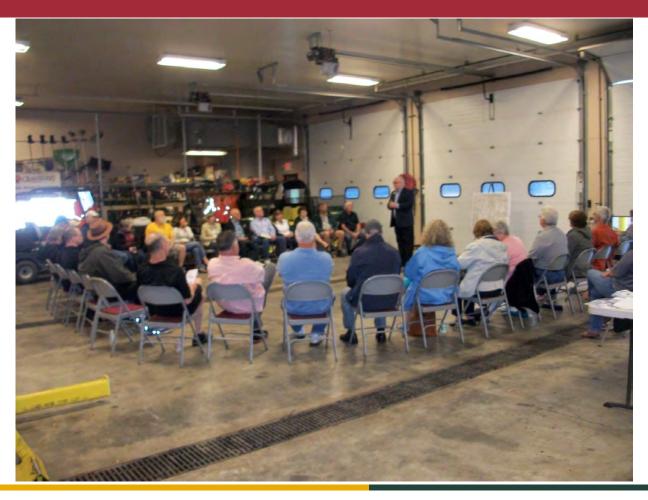
Home Owners Association

- H.O.A. Neighborhood Forum
 - 63 Neighborhood Developments
- Send out Annual Notice
 - Inspect and Maintain Stormwater Management Facilities



Coffee with the Township Manager







Participate in Workshop Training

SPC Water Resource Center

About WRC | Geography | Policy & Regulations | Regional Information & Technical Resources | Educational Materials



Educational Materials

Municipal Separate Storm Sewer System

Upcoming Trainings

A Local Perspective on Addressing MS4 Requirements

The WRC is pleased to announce the upcoming free workshop.

Ever wonder how other local governments in Western Pennsylvania are managing their Municipal Separate Storm Sewer System (MS4) Program? Tim Schutzman, Waterworks Coordinator, highlights what Cranberry Township, Butler County, is doing to meet their MS4 permit requirements

> Tuesday, August 23, 2016 Cranberry Township Municipal Center Council Chambers 2525 Rochester Road Cranberry Township, PA 16068

Agenda

- Introduction on Township
 How Cranberry Township Addresses the Six Minimum Control Measure (MCM)
 - · Public Education and Outreach on Stormwater Impacts
 - Public Involvement / Participation
 Illicit Discharge Detection and Elimination

 - Construction Site Stormwater Runoff Control
 Post Construction Stormwater Management in New and Re-Development
 - · Pollution Prevention / Good Housekeeping
- · Future Permit RequirementQuestions

The workshop will be held from 9 am - noon; registration will begin at 8:30

To register, visit https://www.surveyn Linda Duffy at 412-391-5590 ext. 324. mankey.com/r/7W2QKGG or contact



Additional Information - DEP MS4 Resources





Additional Information – DEP MS4 Resources

This booklet belongs to:

The Spring Creek Stormwater Activity Book

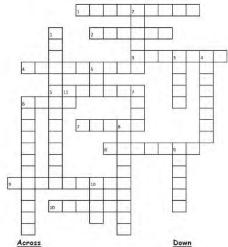


An activity booklet designed to teach children about water resources and stormwater pollution

Created by the MS4 Partners
College, Ferguson, Harris, and Patton Townships;
Penn State; and State College Borough

Crossword Puzzle

Everything we do is interconnected and can affect something else. Complete the crossword puzzle below. Hint, many of the words can be found in this activity book.



- 1) A local University
- 2) A rain _____, for storing water
- 3) A Spring Creek Mountain
- 4) A town at the mouth of the watershed
- 5) A practice that helps the environment
- 6) A form of precipitation
- 7) A landscape term describing sinkholes and closed depressions
- 8) A local municipality (2 will work)
- 9) An under drained valley of Spring Creek
- 10) A town at the base of 3 across

- 1) A large local wetland
- 2) Where water comes out of the ground
- 3) A Spring Creek fish
- 4) Pollution not from a single spot or "point"
- 5) Something you do at a store
- 6) A Spring Creek tributary
- 7) A compass direction
- 8) What this activity book is about
- 9) Where the community gets its drinking water
- 10) A type of bird found around marshes
- 11) Something you say when you touch something slimy



Additional Information – DEP MS4 Resources

EPA Resources (Fact Sheets, Guidance, Training and Webcasts)

http://www.epa.gov/npdes/stormwater-discharges-municipal-sources#resources

DEP Resources (Template, PowerPoint, Stenciling and Landscape Manual)

http://www.dep.pa.gov/Business/Water/PointNonPointMgmt/StormwaterMgmt/Storm

water/Pages/MS4-Resources.aspx#.VsNAPaMo6Uk



Questions



