

# Storm Water Management Program

Revised March 2007

**Ohio EPA Facility Permit Number 3GQ00041\*AG**

**PORTAGE COUNTY  
BRIMFIELD TOWNSHIP  
FRANKLIN TOWNSHIP  
RAVENNA TOWNSHIP  
ROOTSTOWN TOWNSHIP  
SUFFIELD TOWNSHIP  
CITY OF RAVENNA  
CITY OF STREETSBORO  
BRADY LAKE VILLAGE  
VILLAGE OF SUGAR BUSH KNOLLS**

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## TABLE OF CONTENTS

I.	Executive Summary.....	3
II.	Legal Authority to Implement the Storm Water Management Program.....	3
III.	Financial Ability to Implement the Storm Water Management Program.....	3
IV.	Permit Coverage Area Descriptions.....	4
V.	Description of Permit Development and Decision Process.....	6
VI.	Reporting Requirements.....	6
VII.	Storm Water Management Program.....	7
	A. Public Education and Outreach on Storm Water Impacts (MCM #1).....	7
	B. Public Participation & Involvement (MCM#2).....	12
	C. Illicit Discharge Detection and Elimination (MCM #3).....	15
	D. Construction Site Storm Water Runoff Control (MCM #4).....	18
	E. Post-Construction Storm Water Management in New Development and Redevelopment (MCM #5).....	21
	F. Pollution Prevention/Good Housekeeping for Community Operations (MCM #6).....	25
VI.	Shared Responsibility, Monitoring, Recordkeeping, and Reporting.....	28
VII.	Appendices.....	29

## **I. Executive Summary**

Portage County, and its partnering townships and municipalities, is required to submit a storm water management plan in accordance with Ohio Law. This document outlines the Portage County program to develop, implement and enforce a storm water management program that is designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality and to satisfy the appropriate requirements of the Clean Water Act in accordance with the Ohio Environmental Protection Agency Phase II NPDES program. The storm water management plan addresses the six minimum control measures required by state regulations. The plan also identifies Portage County's legal authority to implement the general permit. The Notice of Intent (NOI) and the storm water management plan was submitted March 10, 2003. The Storm Water Management Program was revised as a result of Ohio EPA recommendations and resubmitted to the Ohio EPA on June 20, 2004.

## **II. Legal Authority to Implement the Storm Water Management Program**

Portage County has the legal authority to implement the following Storm Water Management Program under the governmental authority granted by the Ohio Revised Code. Some legal limitations may exist in regard to the County ability to enact enforceable regulations as part of this program.

The Townships in Portage County have minimal legal authority to implement the Storm Water Management Program. Some legal limitations may exist in regard to the Township ability to enact enforceable regulations as part of this program.

The City of Streetsboro and City of Ravenna have the legal authority to implement the following Storm Water Management Program under the governmental authority granted by Article XVIII, Section 3 of the Ohio Constitution.

## **III. Financial Ability to Implement the Storm Water Management Program**

The communities in Portage County that are required to comply with EPA NPDES Phase II regulations will fund the additional activities necessary to implement the SWMP through their respective general funds. Portage County and its co-permittees will provide a per capita annual appropriation to the Portage Soil & Water Conservation District (SWCD) for the Phase II reporting, educational programs and sediment and erosion control inspection programs. The agreement and per capita appropriation schedule will be evaluated each year to ensure that program costs are covered. The appropriation schedule and budget for the SWCD services is attached to this program as Appendix A. Individual communities may be responsible for additional costs of implementing the Storm Water Management Plan.

#### **IV. Permit Coverage Area Descriptions**

Portage County can be divided into three U.S. Army Corps of Engineer Districts, namely Buffalo District, Pittsburgh District and Huntington District. These Districts cover the five main watersheds in Portage County. Three of these river basins fall within the urban areas that are required to comply with OEPA NPDES permit regulations.

The Buffalo Army Corps of Engineers District in Portage County is made up of the Cuyahoga River Basin (136,135 acres), the Chagrin River Basin (13,435 acres) and the Grand River Basin (3,087 acres). The Pittsburgh Army Corps of Engineers District in Portage County consists of 170,770 acres in the Mahoning River Basin and the Huntington Army Corps of Engineers District in Portage County is comprised of 1,078 acres of the Tuscarawas River Basin within Portage County. All communities in Portage County that are applying as co-permittees are located in either the Cuyahoga River watershed or the Mahoning River watershed.

The Cuyahoga River watershed consists of 136,135 acres in Portage County. The communities with urbanized areas that are required to comply with the OEPA Phase II NPDES permit and that are applying as co-permittees under the Portage County Storm Water Management Program are: Brimfield Township (5.0 mi<sup>2</sup>), Brady Lake Village (0.4 mi<sup>2</sup>), Franklin Township (3.28 mi<sup>2</sup>), Ravenna Township (4.5 mi<sup>2</sup>), Rootstown Township (6.9 mi<sup>2</sup>), Suffield Township (5.8 mi<sup>2</sup>), Village of Sugar Bush Knolls (0.27 mi<sup>2</sup>), and City of Streetsboro (6.9 mi<sup>2</sup>).

The Brimfield Township sub watersheds that drain into the Cuyahoga River are Plum Creek, Brimfield Ditch, Breakneck Creek feeder canal and Morrow Ditch.

The Brady Lake Village sub watershed that drains into the Cuyahoga River is Brady Lake.

The Franklin Township sub watersheds that drain into the Cuyahoga River are Breakneck Creek, Plum Creek, Fish Creek and Brimfield Ditch.

The Ravenna Township sub watersheds that drain into the Cuyahoga River are Breakneck Creek, Wahoo Ditch, Eckert Ditch and Hommon Ditch.

The Rootstown Township sub watersheds that drain into the Cuyahoga River are Breakneck Creek, Reed Ditch and Clara Root Ditch.

The Suffield Township sub watersheds that drain into the Cuyahoga River are Potters Creek and Wingfoot Lake Outlet.

The Village of Sugar Bush Knolls sub watersheds that drain into the Cuyahoga River are unnamed tributaries to Tinkers Creek and Twin Lakes.

The City of Streetsboro sub watersheds that drain into the Cuyahoga River are unnamed tributaries to Tinkers Creek and the Cuyahoga River.

The Mahoning River watershed consists of 170,770 acres in Portage County. A portion of Ravenna Township, which is applying as a co-permittee under the Portage County Phase II plan and is required to comply with the OEPA NPDES Phase II permit, is located within this watershed. There are 2.9 square miles of the regulated area of Ravenna Township that is in the Mahoning River watershed.

The Ravenna Township sub watersheds that drain into the Mahoning River are the West Branch of the Mahoning River, Harmon Brook and unnamed tributaries.

## **V. Description of Permit Development and Decision Process**

The process to develop the Portage County Storm Water Management Plan began in September of 2002 with the Portage County Commissioners authorizing the Portage Soil & Water Conservation District to be the lead agency on this project. The Commissioners invited the communities affected by the Phase II rule to join the County's plan and apply for the NPDES permit as co-permittees in order to save money and standardize approaches to storm water management in the County. The Portage County Commissioners, Portage County Engineer and the Portage SWCD hosted multiple informational meetings for Phase II communities.

Public informational meetings for participating communities were held in the fall of 2002. Meetings between the Portage County Regional Planning Commission, Portage County Engineer, Portage County Health Department and Portage SWCD were held January 9, January 30 and January 31, 2003 to review subdivision regulations and discuss possible revisions. An organizational meeting to establish a storm water task force was held in March of 2003. A cooperative effort among all the Phase II communities in the county would be the most logical and effective response to these new requirements and we are working to accomplish that goal. The Portage SWCD and the Portage County Commissioners presented the agreement and the draft SWMP to the Trustees from participating communities at a public meeting on February 15, 2003.

A Storm Water Task Force was established in March of 2003. The Task Force reviewed the general requirements of each Minimum Control Measure required by the permit, and began an inventory of current activities that meet these general requirements. The Task Force will meet quarterly to review the progress of the Storm Water Management Program and make appropriate decisions on BMPs and other programs relating to the SWMP. The Task Force will make recommendations annually to the participating communities to be included in the annual report to the OEPA during the permit period from 2003-2008. Members of the Storm Water Task Force will include 1-2 representatives from each participating community (including the designated responsible party), Portage SWCD delegate, Portage County Engineer's Office representative, Portage County Health Department representative, Portage County Water Resources representative and Portage County Planning Commission representative.

## **VI. Reporting Requirements**

Portage County and its listed co-permittees will submit its required report annually during the first term of the permit cycle. The report will be written by the Portage Soil & Water Conservation District. The report will include the status of compliance with the permit conditions, an assessment of the appropriateness of the BMPs and progress towards achieving the measurable goals for each of the six minimum control measures. The report will also include a summary of the activities of Portage County and its listed co-permittees will undertake during the reporting cycle and any changes to BMPs or measurable goals and all relevant data obtained during the reporting period.

## **VII. Storm Water Management Program**

The plan outlines the six minimum control measures which are expected to result in significant reductions in pollutants discharged by Portage County and its listed co-permittees. The six minimum control measures will address water quality pollutants such as sediment, road debris, machinery and vehicle fluids such as gasoline, oil and coolant, and urban non-point source pollutants (i.e. nutrients, pesticides, household hazardous waste) entering the MS4. The minimum control measures (MCM) are: #1-Public Education and Outreach, #2-Public Participation and Involvement, #3-Illicit Discharge Detection and Elimination, #4-Construction Site Runoff Control, #5-Post-Construction Runoff Control, #6-Pollution Prevention & Good Housekeeping.

### **A. Public Education and Outreach (MCM #1)**

The goal of this measure is to gain public support and increased compliance with NPDES regulations. When citizens understand the issues surrounding storm water management, they will be more likely to volunteer their efforts and avoid actions that lead to water quality problems.

#### **Strategies**

The Portage SWCD will be responsible for the overall management and implementation of the public education and outreach program.

Portage County and its co-permittees will inform residents about the steps they can take to reduce storm water pollution and about ways to get involved in the Portage County Storm Water Management Program through a combination of public meetings, workshops, community activities, and print media including newspaper articles, newsletters, new resident outreach, brochures, and web site postings. The Portage SWCD newsletter is sent three times per year to over 7,000 Portage County residents. The Portage SWCD website will also provide a link to storm water program information and the number of hits to the link will be documented.

There are three main target groups in Portage County. First are the homeowners who form the vast majority of property owners in the County. The County and co-permittees will use all of the tools described above to reach this group. The County will work to expand its home sewage treatment system maintenance education program. The Portage SWCD will also contact homeowners' associations and civic groups directly to involve them in education efforts. The second target group is the commercial businesses. The County, Cities and Townships will reach these groups mainly through the distribution of brochures and the website information. Some commercial business owners may be contacted directly by members of the Storm Water Task Force to discuss the measures that they now take to control runoff and pollution, and to discuss ways that they can improve and participate in the storm water program. The third target group is the students in the County. As the future homeowners and business owners of the County, it is important to educate these individuals on storm water management issues and their role

in non-point source pollution. The Portage SWCD will deliver a comprehensive storm water and non-point source pollution education program to the school systems serving the permit communities. The program will utilize educational materials, the Enviroscope Model, groundwater model and the streamulator. It will consist of both in-class presentations and teacher workshops.

The education programs for Portage County and its co-permittees will target pollutant sources common to the Cuyahoga River and Mahoning River watersheds, including sediment pollution from stream bank and road ditch erosion and improperly controlled construction sites, habitat alteration due to land use changes, bacteria and nutrient pollution from home sewage treatment systems, and urban storm water runoff. Because the majority of these pollution problems are caused by increases in impervious cover and the resulting increases in storm water volume and velocity, much of the educational program will focus on increasing public awareness of the links between land use practices and storm water pollution. Portage County will also continue its program on proper operation and maintenance of home sewage treatment systems. The Portage SWCD and the Storm Water Task Force will seek out and develop materials to address homeowner practices that may cause pollution, such as landscaping and lawn care; use and disposal of paints, solvents, oils, etc; and recycling or composting of appropriate materials.

Portage County and its co-permittees will use the following strategies to reach the three target audiences:

1. Portage SWCD newsletter three times per year and County, Township and City newsletters and publications as needed.
2. News releases and articles in local papers—e.g., *Record Courier*
3. Web site postings and links on Portage SWCD website and participating community websites.
4. Educational storm water workshops held at County, City and Township levels that target innovative storm water management techniques.
5. Educational brochure produced by Portage SWCD for distribution in County, City and Township locations (e.g. libraries, municipal buildings, special events).
6. Portage SWCD will distribute educational materials on the storm water management program at SWCD events (e.g. Portage County Fair, Farm-City Tour, clinics and workshops).
7. Use of educational materials from Portage County Health Department on proper operation and maintenance of home sewage treatment systems.
8. Storm Water Task Force will develop a new resident outreach program to be used as needed in participating communities.
9. Storm Water Task Force will directly contact key commercial businesses.
10. Portage SWCD will directly contact homeowners' associations and civic groups.
11. Portage SWCD will deliver a comprehensive storm water and non-point source pollution education program to the school systems serving the permit



- communities that utilizes educational materials, the Enviroscape Model, groundwater model and the streamulator.
12. Portage SWCD will hold at least one teacher workshop on an annual basis that addresses storm water issues.
  13. Portage SWCD will hold two training workshops at local demonstration sites on road ditching BMPs for Township road maintenance crews.

Portage County and its co-permittees will use the following methods to evaluate the success of this MCM#1:

1. The Portage SWCD will develop public opinion and awareness surveys in 2003 and 2007 to be conducted by the participating communities with the goal of evaluating the state of public knowledge and awareness of storm water issues and to what extent the public has adopted appropriate BMPs.
2. Each year, the Storm Water Task Force will evaluate progress on the SWMP. Items used to measure progress may include:
  - a. Number of meetings with key commercial property owners to evaluate progress
  - b. Number of meetings with homeowners' associations.
  - c. Review of print materials and number many copies distributed.
  - d. Number of storm water web site link hits and feedback.
  - e. Number of schools and students participating in education program.
  - f. Review of educational workshop attendance and evaluation of workshops.
  - g. Review of public meeting attendance and evaluation of meetings held.

### **Timeline & Goals**

<u>Target Date(s)</u>	<u>BMP Activity</u>
3/2003	Portage SWCD will hold public meeting to update local citizens on status of storm water management program.
3/2003	Portage SWCD will conduct a BMP Workshop for builders and developers in Portage County.
4/2003	Hold public meeting of Storm Water Task Force to inventory current educational programs in the participating communities that could be added or included in the storm water management program.
7/2003	Portage SWCD contacts homeowners associations and civic groups directly to inform and involve them the education program.
7/2003	Storm Water Task Force members contact key commercial business owners to discuss the measures that they now take to

control runoff and pollution, and to discuss ways that they can improve and participate in the storm water program.

9/2003-5/2007	Portage SWCD implements comprehensive storm water and non-point source pollution education program to the school systems serving the permit communities.
1/2003	Portage SWCD will develop one or more educational brochures on storm water management and non-point source pollution.
11/2003	Portage SWCD will develop public opinion and awareness surveys to be conducted by the participating communities with the goal of evaluating the state of public knowledge and awareness of storm water issues and to what extent the public has adopted appropriate BMPs.
1/2004	Add storm water link to Portage SWCD website.
1/2004	Portage SWCD will work with participating communities to add storm water link to local websites.
2/2004	Portage SWCD will hold public meeting to update local citizens on status of storm water management program.
3/2004	Portage SWCD will conduct a BMP Workshop for builders and developers in Portage County.
3/2004	Portage SWCD will mail public opinion and awareness surveys to 1,000 randomly sampled households within the permit coverage area to evaluate current public knowledge of storm water issues.
3/2004-12/2007	Participating communities distribute educational brochures to residents via special events, community buildings, municipal offices, mailings, etc.
6/2004	Portage SWCD will conduct a workshop for Realtors to educate them on land use, BMPs and storm water issues.
6/2004	Portage SWCD will hold public meeting to update local citizens on status of storm water management program.
7/2004	Portage SWCD will conduct a workshop for homeowners and homeowner associations on BMPs and storm water.
3/2005	Portage SWCD will hold public meeting to update local citizens on status of storm water management program.

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| 5/2006  | Portage SWCD will conduct a workshop on innovative storm water management techniques.  |
| 3/2007  | Portage SWCD will hold public meeting to update local citizens on status of storm water management program.  |
| 12/2007 | Portage SWCD will mail public opinion and awareness surveys to 1,000 randomly sampled households within the permit coverage area to evaluate current public knowledge of storm water issues. |

## **B. Public Participation & Involvement (MCM #2)**

The goal of this measure is to increase the public's understanding of and involvement in storm water management. Citizen participation in the storm water management program will result in broader public support, shorter implementation schedules, and volunteer labor. This portion of the program will also serve as a conduit to other programs.

### **Strategies**

The Portage SWCD will be responsible for the overall management and implementation of the public participation and involvement program.

All of the meetings where the storm water management plan has been discussed have been open to the public. There also has been newspaper coverage of the development of the storm water management plan and the opinions of local citizens have been considered in its formulation. The Storm Water Task Force will be seeking the support and involvement of residents in the participating communities.

Portage County and the participating communities plan to actively involve the public in the development and implementation of the storm water management plan by using the following techniques:

1. All meetings of the Storm Water Task Force are open to the public. Interested persons will be encouraged to attend and to offer ideas and participate.
2. Meetings will be held to recruit volunteers to implement a number of activities under the plan.
3. The web site will be used to seek opinions on the program from the public.
4. The Portage SWCD will conduct a survey to gauge public opinion and awareness and will help the communities to tailor the plan to the needs of the public. The survey will be repeated in 2008 to evaluate the impact of program activities.
5. The advice of private citizens with expertise in issues related to the program, as well as the advice of important commercial establishments, will be sought directly by individual contact with the appropriate people.
6. All developmental activities under the program, such as research and recommendations on zoning changes related to setbacks, erosion control, or other matters will be held in public meetings.
7. Newspapers will be informed through regular press releases and discussions at public meetings.
8. There will be regular articles on storm water management that appear in the Portage SWCD newsletter.
9. Informational and educational brochures will be available to the participating communities for distribution.
10. Two public meetings will be held to explain the status of Portage County storm water management plan and the purpose of the EPA Phase II program.
11. Volunteers will be recruited to use the Portage SWCD storm drain stenciling

equipment to stencil storm drains in their communities for public awareness purposes.

Portage County and its co-permittees will use the following methods to evaluate the success of this MCM#2:

1. The Portage SWCD will develop public opinion and awareness surveys in 2003 and 2007 to be conducted by the participating communities with the goal of evaluating the state of public knowledge and awareness of storm water issues and to what extent the public has adopted appropriate BMPs.
2. Each year, the Storm Water Task Force will evaluate progress on the SWMP. Items used to measure progress may include:
  - a. Number of meetings with key commercial property owners to evaluate progress
  - b. Number of meetings with homeowners' associations.
  - c. Review of print materials and number many copies distributed.
  - d. Number of storm water web site link hits and feedback.
  - e. Review of workshop attendance and evaluation of workshops.
  - f. Review of public meeting attendance and evaluation of meetings held.
  - g. Number of volunteers recruited to assist with SWMP implementation.
  - h. Number of communities that participate in storm drain stenciling activities.

### **Timeline & Goals**

<u>Target Date(s)</u>	<u>BMP Activity</u>
3/2003	Portage SWCD will hold a public meeting to update local citizens on status of storm water management program.
4/2003	Hold public meeting of Storm Water Task Force to inventory current educational programs in the participating communities that could be added or included in the storm water management program.
7/2003	Portage SWCD will hold two public meetings (one in the North and one in the South) to explain the Phase II goals and to gain public support and interest. The storm drain stenciling program will be one of the programs explained with the intention of recruiting volunteers for this activity.

8/2003-3/2008	Storm drain stenciling programs will be conducted in participating communities.
11/2003	Portage SWCD will develop public opinion and awareness surveys to be conducted by the participating communities with the goal of evaluating the state of public knowledge and awareness of storm water issues and to what extent the public has adopted appropriate BMPs.
3/2004	Portage SWCD will mail public opinion and awareness surveys to 1,000 randomly sampled households within the permit coverage area to evaluate current public knowledge of storm water issues.
6/2004	Portage SWCD will hold public meeting to update local citizens on status of storm water management program.
7/2004	Portage SWCD will conduct a workshop for homeowners and homeowner associations on BMPs and storm water.
3/2005	Portage SWCD will hold public meeting to update local citizens on status of storm water management program.
3/2007	Portage SWCD will hold public meeting to update local citizens on status of storm water management program.
6/2007	Portage SWCD will educate the public on the benefits of riparian areas using newspaper articles, brochures and a public workshop.
10/2007	Portage SWCD will host a volunteer awards program to recognize outstanding volunteers in the storm water management program.
12/2007	Portage SWCD will mail public opinion and awareness surveys to 1,000 randomly sampled households within the permit coverage area to evaluate current public knowledge of storm water issues.

### **C. Illicit Discharge Detection and Elimination (MCM #3)**

The goal of this measure is to eliminate “...any discharge to an MS4 that is not composed entirely of storm water...” with the exception of NPDES-permitted activities and fire fighting activities.

#### **Strategies**

Each individual community (co-permittee) will be responsible for the overall implementation of the minimum control measure for illicit discharge detection and elimination. Specifically, the co-permittee representative to the Storm Water Task Force will be the responsible party. Technical assistance and resources will be provided by the Portage SWCD and members of the Storm Water Task Force to assist the communities in successful implementation of the measure.

Portage County does not currently have a County-wide GIS system, although possibilities to obtain such a system will be investigated. Storm water system maps showing the location and condition of all outfalls will be developed by each community. The Storm Water Task Force will play an advisory role to develop a standard symbol for outfalls in the County. The local road or service department crews will identify outfalls to be mapped and will begin the process of detecting illicit discharges as they go about their normal ditch maintenance program. When discharges are located, the road department will document it using the outfall and illicit discharge detection form and will add the location to the community’s list and/or map. Dry weather inspections will also be performed by road or service departments to detect illicit discharges from home sewage treatment systems. The Storm Water Task Force will assist the communities in the development of a process to address reports of dry-weather discharges into the MS4. The Storm Water Task Force will work towards the development of a storm water quality monitoring program to determine what sources of pollution are entering the MS4 and to address those pollutants. Such a program may include stream monitoring for turbidity and macroinvertebrates, chemical testing at outfalls, and QHEI for streams. Each community will also develop a plan to address illicit discharges into the MS4, including discharges from illegal dumping and spills and from on-site sewage disposal systems that discharge directly into the MS4. Each community will periodically review the procedures for illicit discharge detection to make sure that the most reliable and efficient detection system is employed.

Portage County and its co-permittees will work to develop an enforcement mechanism for addressing and correcting illicit discharges into the MS4s. The Storm Water Task Force is currently reviewing model ordinances and model zoning regulations from other regulated MS4 communities in the surrounding area. Once developed, the Portage County Prosecutor’s Office will review such an ordinance and/or zoning regulation to determine if the participating communities would have the authority to implement and enforce it. Portage County and each of its co-permittees will be responsible for ensuring that such an ordinance or enforcement mechanism is both adopted and implemented.

Effectiveness of the illicit discharge detection and elimination program will be measured by the number of discharges detected, mapped and eliminated in each community. Portage County and its co-permittees plan to inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste. This will be accomplished by coordinating with the minimum control measures #1 & #2 for public education and involvement. The following specific measures will also be implemented:

1. Applicable public employees and road department crews will attend a training session that focuses on the identification and detection of illicit discharges in a MS4.
2. The general public will be informed of all the BMPs used in the public education program. Specific material will be included in handouts, mailings, newsletters, and other techniques of communication.
3. Videos and brochures from the Portage County Health Department will be used to educate homeowners about proper operation and maintenance of home sewage treatment systems.
4. Increased advertisement and information on the services offered for household hazardous waste disposal and recycling by the Portage County Solid Waste District.

### **Timeline & Goals**

<u>Target Date(s)</u>	<u>BMP Activity</u>
6/2003	Storm Water Task Force meets to identify current policies and procedures on illicit discharge and to establish priorities within the participating communities.
8/2003-2008	Communities work with Portage County Health Department to obtain and distribute educational video and materials on the proper operation and maintenance of home sewage treatment systems.
8/2003-2008	Communities work with Portage County Solid Waste District to obtain and distribute educational materials on the drop-off sites and proper disposal of household hazardous wastes.
12/2003	Participating communities begin the process of developing a storm water system map.
6/2004	Storm Water Task Force begins the process of developing a storm water quality monitoring program to determine the sources of pollution entering the MS4.



8/2004	Conduct an educational workshop for homeowners on the proper operation and maintenance of home sewage treatment systems.
8/2004-9/2004	Conduct a training session for applicable public employees on sources and detection of illicit discharges.
9/2005	Storm Water Ordinance Committee is formed and participates in its first facilitated work session.
6/2005	Storm Water Ordinance Committee meets and participates in a facilitated work session.
9/2005	Storm Water Ordinance Committee meets and participates in a facilitated work session.
12/2005	Storm Water Ordinance Committee meets and participates in a facilitated work session.
12/2005	Storm Water Task Force begins process of investigating a storm water utility or other funding mechanism.
1/2006-2008	Communities conduct identification and mapping program for storm water outfalls and illicit discharges.
5/2006	Storm Water Ordinance Committee meets and participates in a facilitated work session.
7/2006	Storm Water Task Force begins process of developing an ordinance or other enforcement mechanism for illicit discharges in Portage County.
8/2006	Conduct an educational workshop for homeowners on the proper operation and maintenance of home sewage treatment systems.
1/2007	Storm Water Task Force will propose concept of storm water utility to local officials for review and comment.
5/2007	Communities develop plans and procedures to identify and eliminate illicit discharges entering the MS4s from known sources.
3/2008	Communities complete storm water system map that identifies all known outfalls.
3/2008	Communities will begin implementation of plans to identify illicit discharges entering the MS4s from known sources.

#### **D. Construction Site Storm Water Runoff Control (MCM #4)**

The goal of this measure is to reduce or eliminate sediment runoff from construction sites due to the long-term physical, chemical and biological harm to aquatic habits resulting from sedimentation.

##### **Strategies**

The Portage SWCD will be responsible for the overall development and implementation of the Construction Site Runoff Control minimum control measure, with the exception of the City of Streetsboro, where the City Engineering Department will be the responsible party.

Portage County currently has erosion and sediment control regulations in place as part of the County Subdivision Regulations (attached). The regulations also include enforcement capabilities that include bonding requirements and stop work orders via the Portage County Engineer's Office. The subdivision regulations will be reviewed and amended if necessary to include the use of the Rainwater and Land Development Manual, temporary stabilization of disturbed areas within 7 days if inactive for 21 days or longer, permanent stabilization of disturbed areas within 7 days of reaching final grade, stabilization of disturbed areas within 50 feet of a stream within 2 days of last disturbance or reaching final grade, all perimeter sediment barriers and sediment ponds installed within 7 days of first grubbing, centralized sediment ponds for common drainage areas of 10 acres or more, and inspections of BMPs by operator at least once every 7 days and within 24 hours of 0.5-inch or greater rainfall. In cooperation with the Portage County Regional Planning Commission, the Portage SWCD and the participating communities, the County Subdivision Regulations will be amended to include areas of development greater than one acre. All co-permittees will also examine other enforcement strategies over the course of the permit period such as county-wide ordinances and changes in zoning regulations. These options will have to be reviewed by the Portage County Prosecutor's Office prior to adoption. The public will be informed of these changes through public meetings, review and media postings.

The Portage County Regional Planning Commission receives and authorizes preliminary development plans. Each plan goes through a site plan review process that involves a number of County agencies. The Portage SWCD, Portage County Engineer's Office, and Portage County Regional Planning Commission meet on site with the developer and contractor prior to the beginning of earth moving activities. The Portage SWCD performs a review of SWPPPs for all commercial, residential and industrial developments, greater than one acre, submitted to the District and provides written comments regarding soil limitations, wetlands, riparian and other natural resource information pertinent to the site. The Portage SWCD will review and approve Storm Water Pollution Prevention Plans (SWPPPs) for all commercial, industrial and residential developments, greater than one acre, in the Townships and Villages. The City of Streetsboro Engineering Department will review SWPPPs for the City. The SWCD will also conduct regular inspections of

these development sites (at least once per month) and keep the communities informed of construction site SWPPP compliance. Inspections will also be conducted on construction sites in response to written or verbal complaints from the public.

The success of this minimum control measure will be evaluated according to the following criteria:

1. Number of pre-construction meetings
2. Number of developments disturbing one acre or more.
3. Number of E&SC plans submitted and approved.
4. Number of violations.
5. Number of developers attending BMP workshops.
6. Storm Water Task Force will review the program and recommend changes in the regulations or procedures.

This evaluation will be made annually by the Storm Water Task Force and submitted annually in a report to the EPA.

### **Timeline & Goals**

<u>Target Date(s)</u>	<u>BMP Activity</u>
1/2003	Portage SWCD, Portage County Engineer's Office and Regional Planning Commission meet to evaluate existing construction site inspection program and address problems with the current process.
3/2003	Storm Water Task Force reviews Portage County subdivision regulations and offers feedback or suggestions on possible improvements to the regulations.
3/2003	Portage SWCD implements procedure for construction site inspections.
3/2003-2008	Portage SWCD and participating communities begin to inform citizens of the requirement to apply for a permit for disturbed areas over one acre.
9/2003	Portage SWCD conducts a BMP workshop for developers.
1/2004	Begin process to update subdivision regulations to include disturbed areas over one acre.
3 /2004	Portage SWCD conducts a BMP workshop for developers.
2/2005	Portage SWCD conducts a BMP workshop for developers.

3/2005	Storm Water Ordinance Committee is formed and participates in its first facilitated work session.
6/2005	Storm Water Ordinance Committee meets and participates in a facilitated work session.
9/2005	Storm Water Ordinance Committee meets and participates in a facilitated work session.
12/2005	Storm Water Ordinance Committee meets and participates in a facilitated work session.
5/2006	Storm Water Ordinance Committee meets and participates in a facilitated work session.
6/2006	Portage SWCD conducts a BMP workshop for developers.
6/2006	Storm Water Task Force evaluates inspection process.
6/2007	Storm Water Task Force investigates volunteer monitoring projects to determine effectiveness of sediment and erosion control regulations.
9/2007	Portage SWCD conducts a BMP workshop for developers.
9/2008	Portage SWCD conducts a BMP workshop for developers.

## **E. Post-Construction Storm Water Management in New Development & Redevelopment (MCM #5)**

The goals of this measure are to reduce the water quality and water quantity impact from new development and redevelopment projects. The oil, grease, pesticides, herbicides, heavy metals and nutrients produced by our daily lives impair water quality. Increased peak runoff from rooftops, streets and parking lots causes flooding problems down stream.

### **Strategies**

Each co-permittee will be responsible for the overall management and implementation of the Post-Construction Storm Water Management minimum control measure. Technical assistance and resources will be provided by the Portage SWCD and members of the Storm Water Task Force to assist the communities in successful implementation of the measure.

Portage County and its participating communities will use a combination of planning activities, education, and non-structural and structural practices to address storm water runoff from new development and redevelopment projects. Portage County is a mix of urban areas, suburban communities and agricultural land. Water quality concerns are those related to increases in storm water runoff as impervious cover increases and include sedimentation due to stream bank erosion, increased flooding due to increases in storm water volume, higher temperatures due to increases in storm water temperature in detention facilities, and habitat loss as riparian and wetland areas are impacted by development.

The regulated communities in Portage County are working towards the successful implementation of this minimum control measure for Post-Construction Storm Water Management. In July of 2003, the Portage SWCD began requesting the addition of post-construction best management practices (BMPs) during the SWPPP review process for all new development sites. The selection of BMPs for each site is considered on a case-by-case basis and is customized according to site conditions. Engineers and developers are directed to the ODNR Rainwater & Land Development Manual and the Stormwater Managers Resource Center for guidance on the design and installation of these BMPs. The Storm Water Task Force and the Portage SWCD are currently working with the Portage County Regional Planning Commission to update the subdivision regulations. Both structural and non-structural BMPs (selected from the USEPA National Menu of BMPs) for post-construction storm water management are planned to be included in the new regulations.

Portage County and its co-permittees will explore the implementation of zoning for the regulated Townships that encourages both structural and non-structural post-construction storm water management. The Portage SWCD is currently in contact with adjacent

counties to obtain possible model zoning regulations that could be both adopted by the Townships and supported by the Portage County Prosecutor's Office.

City of Streetsboro, Village of Sugar Bush Knolls, and Brady Lake Village are in the process of reviewing model regulations from other adjacent communities that address both structural and non-structural BMPs for post-construction storm water management. All of these communities plan to adopt a regulatory mechanism prior to the expiration of the permit.

One of the goals of the Storm Water Task Force is to agree upon a standard regulatory mechanism for post-construction storm water management that can be used by all communities in Portage County to maintain consistency across political boundaries. Legal limitations on the ability of the County and Townships to institute an enforceable regulatory mechanism complicate the situation; however the Storm Water Task Force is aware of these limitations and is working on both a local and state level to remedy this problem.

Because these BMPs represent significant changes in storm water management in Northeast Ohio, education for landowners, developers, planners, engineers, and others is necessary to support their implementation. BMP workshops for developers will be held as well as educational workshops for homeowners on non-structural BMPs and landscaping techniques to control runoff.

The success of this minimum control measure will be evaluated according to the following criteria:

3. Number of educational workshops conducted on post-construction storm water management and BMPs
4. Number of engineers, developers, and/or contractors in attendance at post-construction educational workshops
5. Additions the Portage County Subdivision Regulations that address post-construction storm water management in new development
6. The adoption of regulatory mechanisms to address post-construction storm water management in new and existing developments
7. Storm Water Task Force will review the program and recommend changes in the regulations or procedures.

This evaluation will be made annually by the Storm Water Task Force and submitted annually in a report to the EPA.

## **Timeline & Goals**

<u>Target Date(s)</u>	<u>BMP Activity</u>
3/2003	The Storm Water Task Force will review existing strategies of structural and/or non-structural BMPs for controlling storm water from construction sites with a land disturbance greater than or equal to one acre.
1/2004	Propose changes in the storm water regulations to include structural BMPs to decrease storm water runoff and promote increased infiltration.
2/2004-2008	Portage SWCD conducts a BMP workshop for developers.
7/2004	Hold meeting for Home Owners Associations in Portage County to inform them of the new storm water management program.
7/2004	Conduct a workshop for homeowners on nonstructural and landscape BMPs to control storm water runoff and increase infiltration.
10/2004	Storm Water Task Force will explore a mechanism to address post-construction runoff from new development.
12/2004	Storm Water Task Force will explore the development and implementation of a County wide sediment and storm water control ordinance.
3/2005	Storm Water Ordinance Committee is formed and participates in its first facilitated work session.
6/2005	Storm Water Ordinance Committee meets and participates in a facilitated work session.
9/2005	Storm Water Ordinance Committee meets and participates in a facilitated work session.
12/2005	Storm Water Ordinance Committee meets and participates in a facilitated work session.
9/2006	Conduct a workshop for homeowners on nonstructural and landscape BMPs to control storm water runoff and increase infiltration.
12/2006	Storm Water Task Force proposes a County wide sediment and storm water control ordinance or other regulatory mechanism.

- 6/2007 Storm Water Task Force will begin to develop a program to ensure that operation and maintenance responsibilities are clearly identified.
- 8/2008 Conduct a workshop for homeowners on nonstructural and landscape BMPs to control storm water runoff and increase infiltration.



## **F. Pollution Prevention / Good Housekeeping for Community Operations (MCM #6)**

The goal of this measure is to ensure that the people in charge of the MS4s are doing their part, along with the public, to keep pollutants out of the storm water. Much of this is currently being done by Portage County and its co-permittees.

### **Strategies**

Each co-permittee will be responsible for the overall management and implementation of the Pollution Prevention/Good Housekeeping minimum control measure. Specifically, the co-permittee representative to the Storm Water Task Force will be the responsible party. Technical assistance and resources will be provided by the Portage SWCD and members of the Storm Water Task Force to assist the communities in successful implementation of the measure.

Portage County, the City of Streetsboro, Villages and Townships will use available training materials from EPA, OSHA, and ODOT. Training sessions for the Road & Maintenance Departments and other applicable employees will be required annually at a minimum. The Portage SWCD will provide assistance, if requested, to the communities with the training sessions. Training sessions will be held at the community road department headquarters and will include but not be limited to the following areas:

- Maintenance activities, maintenance schedules and inspection programs to reduce pollutants entering the MS4
- Controls for reducing the discharge of pollutants from streets, roads, parking lots, maintenance areas, and salt storage locations operated by the community
- Development of procedures for the proper disposal of waste removed from the community's MS4 and municipal operations
- Development of procedures to detect and map outfalls and illicit discharges
- Review of BMPs currently being used by the entity (chosen from the USEPA National Menu of BMPs) and review of possible BMPs to add to the entity's pollution prevention plan

The communities will compile annual training reports and submit them to the Portage SWCD. These reports will be included in the annual EPA Phase II report. Training materials will be incorporated in newsletters, press releases, and web site pages for dissemination to the general public.

Upon request, the Portage SWCD and the members of the Storm Water Task Force will assist the participating communities in choosing the most suitable BMPs to use, as each community will have unique problems, issues and priorities. A review of existing good housekeeping procedures of participating communities will be conducted at the training sessions and the Portage SWCD and Storm water Task Force members will assist the communities in developing new programs and procedures (i.e. salt storage, waste disposal, flood management).

Two road ditching BMP demonstration sites in Portage County will be used to train road crews on improved ditch maintenance procedures and workers will participate in training workshops on road ditching BMPs.

BMPs will be selected from materials provided by local and state agencies and from recommendations of Road and Maintenance Superintendents. All BMPs will be discussed by the Storm Water Task Force and presented in public meetings. BMPs will be chosen based upon applicability to community operations, feasibility, and impact on water quality protection. BMPs that will be addressed include: outdoor storage of materials, salt storage, snow removal, street sweeping, waste station maintenance, ditch cleaning and maintenance, hazardous materials disposal, parking lot cleaning, pesticide usage, yard materials recycling, and vehicle washing. BMPs that are chosen by each co-permittee will be included in the Annual Report to the EPA.

The success of this minimum control measure will be evaluated according to the following criteria:

1. Number of training sessions for community employees conducted on good housekeeping, pollution prevention and applicable BMPs
2. Number of employees in attendance at training sessions
3. Number of existing BMPs used by the co-permittees
4. Number of new BMPs added to the pollution prevention plans of co-permittees
5. Storm Water Task Force will review the program and recommend changes in the policies or procedures.

This evaluation will be made annually by the Storm Water Task Force and submitted annually in a report to the EPA.

### **Timeline & Goals**

<u>Target Date(s)</u>	<u>BMP Activity</u>
3/2003	The Storm Water Task Force will identify and list all locations and sources of pollution problems on property owned or operated by the participating communities.
8/2003	The Storm Water Task Force will meet to evaluate and inventory current pollution prevention procedures.
3/2004	The Storm Water Task Force will compile a list of possible BMPs to address pollution prevention problems.
6/2004-2008	Conduct annual training programs in the participating communities for Road Superintendents and applicable employees.

9/2005	Participating communities will begin implementation of plans to address pollution prevention using selected BMPs.
3/2006-2008	Storm Water Task Force will evaluate and change pollution prevention plans as needed to eliminate pollution problems.

## **VI. Shared Responsibility, Monitoring, Recordkeeping, and Reporting**

### **A. Shared Responsibility**

Portage County and its co-permittees will retain ultimate responsibility for the storm water program development and implementation under the permit. However, the Portage SWCD will play a vital role in assisting the permittees in implementing MCMs # 1-5. Portage County SWCD will assist in the implementation MCMs # 1 & 2 by providing written materials, training, and workshops. SWCD will assist in the implementation of MCM # 4 by conducting pre-construction meetings with developers, reviewing site plans, and following up on enforcement upon the request of the Township. Portage SWCD will also advise the Township on MCM #5, in developing zoning regulations and other BMPs to control post-construction storm water runoff. The Portage SWCD will also receive any applicable records and reports from the permittees and will use this information to write and submit the annual EPA Phase II report.

### **B. Monitoring**

Monitoring will be performed in accordance with section 5.1 of the Permit.

### **C. Record Keeping**

All records will be kept in accordance with Section 5.2 of the Permit.

### **D. Reporting**

Reports will be submitted annually starting one year after the date of general permit coverage. Reports will contain the information required in Section 5.3 of the Permit.

## **VII. Appendices**

### Appendices to the Storm Water Management Program

- A. Appropriation Schedule and SWCD Budget
- B. Urban Area Maps of Portage County
- C. List of Ohio EPA Industrial Storm Water General Permit and individual NPDES permits held by Portage County
- D. List of conservation easements held by Portage SWCD
- E. Map of protected areas in Portage County
- F. Memorandums of Agreement
- G. Portage County Subdivision Regulations

## **Appendix A**

Appropriation Schedule and SWCD Budget

## **Appendix B**

Urban Area Maps of Portage County

## **Appendix C**

List of Ohio EPA Industrial Storm Water General Permit and individual NPDES permits  
held by Portage County



## **Appendix D**

List of Conservation Easements held by Portage SWCD

## **Appendix E**

Map of protected areas in Portage County

## **Appendix F**

Memorandums of Agreement

## **Appendix G**

Excerpts from the Portage County Subdivision Regulations