

**CITY OF WOOSTER  
STORM WATER MANAGEMENT PLAN**

May, 2007

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## CITY OF WOOSTER

### **Certification**

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

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Joel Montgomery  
Engineering Division Manager  
City of Wooster, Ohio

## **Executive Summary**

The City of Wooster is required to submit a storm water management plan (SWMP) in accordance with 40 CFR 123.25(41) and proposed Ohio law (OAC 3745-39). This document outlines the City's program to develop, implement and enforce a storm water management program 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 (CWA) in accordance with the Ohio Environmental Protection Agency (OEPA) National Pollutant Discharge Elimination System (NPDES) Phase II program. The SWMP addresses the Six Minimum Control Measures as required by state regulations. The plan also identifies the City's legal authority to implement the requirements of the OEPA's general permit.

## **Legal Authority**

The Charter and Code of the City of Wooster provides the City with the authority to control the quality of separate storm water discharge to its storm sewer system. The City of Wooster has both the fiscal resources and legal authority to fully implement its storm water management plan. The City has an established storm water utility which provides the funding source for operation and maintenance of the system and will also be used to fund NPDES compliance activities. The City has adopted this storm water management plan for the first five year permitting period, as shown in the attached documentation (Attachment A).

## **Permit Coverage Area**

The SWMP traverses all areas within the incorporated City limits. Wooster has a population of 24,811 (US Census Bureau, 2000) and encompasses approximately 14.2 square miles. The City is located in the Upper Killbuck Creek Watershed near the confluence of Killbuck Creek, Apple Creek and Christmas Run. The City is largely residential, with concentrations of commercial areas in the downtown area, which is centered on the intersection of Liberty and Market Streets.

## **Reporting Requirements**

The City of Wooster will submit its required update annually during the first five-year term of the permit cycle. The report will include the status of compliance with the permit conditions, an assessment of the appropriateness of the best management practices (BMPs) and progress towards achieving measurable goals for each of the Six Minimum Control Measures. The City will also summarize all data collected and analyzed during the course of the permit cycle, and include said summary as part of the annual report.

A summary of the activities the City will undertake during the annual reporting cycles and any changes to the BMPs or measurable goals will be included in the annual report.

## **Storm Water Management Plan (SWMP)**

The SWMP outlines the Six Minimum Control Measures that are expected to result in reductions in the adverse effects of storm water discharged by the City of Wooster. The OEPA has completed the 2004 Integrated Water Quality Monitoring and Assessment Report (the 305(b) and the 303(d) TMDL list). The City is located within two watersheds contained on the 303(d) List of Prioritized Impaired Waters (Category 5): the Killbuck Creek watershed, from the headwaters to upstream Apple Creek (Assessment Unit 05040003 050) and the Killbuck Creek watershed, from upstream Apple Creek to downstream Salt Creek (Assessment Unit 0504003 060).

### Killbuck Creek (headwaters to upstream Apple Creek)

The results in the OEPA 2004 Integrated Report for this watershed indicated that organic enrichment/DO and direct habitat alteration were high magnitude causes of impairment in the waterway. The sources of these causes were attributed to non-irrigated crop production, feedlots, channelization from agriculture and natural causes. From the list shown, the only source partially attributable to the City would be natural causes.

### Killbuck Creek (upstream Apple Creek to downstream Salt Creek)

The OEPA 2004 Integrated Report indicated that organic enrichment/DO and direct habitat alterations were the causes of impairment for this watershed. The sources of the causes were attributed to channelization from agriculture and natural causes. Again, the source attributable to Wooster is natural causes.

The Killbuck Marsh Wildlife Area, owned by ODNR, is located 3 miles south of the Wooster wastewater treatment plant. This area has been identified as a critical habitat.

Based on the above, the Wooster storm water management plan addresses flow modification (pre- and post- quantity concerns) and erosion and sedimentation control through all phases of land disturbance. Wooster has most of these programs already in place. This plan will reflect programs in place, with some refinement coupled with a public education/outreach component.

The Six Minimum Control Measures are:

1. Public Education and Outreach
2. Public Participation/Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Storm Water Runoff Control
5. Post Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

Each measure is addressed separately below. Generally, the plan identifies the strategies, existing programs and proposed programs for each minimum control measure.

## ***Public Education/Outreach***

The City of Wooster has chosen a mix of BMPs for public education and outreach. This control measure will target homeowners, commercial property owners, and the general public (those visiting Wooster and non-homeowners). The general areas that the City considered when determining the implementation of their public education and outreach program are: forming partnerships; using educational materials and strategies; and reaching diverse audiences.

The initial five-year program for the City of Wooster is predicated largely on increasing awareness of how the City's municipal separate storm sewer system (MS4) functions through information dissemination. Once awareness has been increased, the program is enhanced to include more active public participation.

### ***Forming Partnerships***

The City is interested in tailoring their storm water education program for their citizens through use of available resources. The City of Wooster and the Wayne County SWCD have a working relationship related to storm water education at the Wayne County Fair. Wayne County SWCD also has a history of assisting with environmental and water resource education and outreach programs to the local schools. The City will meet with Wayne County SWCD to evaluate additional partnership opportunities to extend storm water education within the City and through additional events and/or school programs.

In the past, the City has collaborated with Wooster College on student led park clean-up efforts. The City will meet with the college administration to discuss future collaboration on park and/or stream clean-up events. Efforts will be extended to coordinate an on-going college-focused adopt a stream or park or other clean-up program.

The City Engineering Division Manager shall be responsible for the overall management and implementation of the storm water public education/outreach program, through coordination with the Wayne County SWCD, the local school administration and the colleges.

### ***Education Materials and Strategies***

The City of Wooster has a number of existing programs specifically for the dissemination of information to its citizens. These include an internet web site, an annual article on stormwater to be sent to all residents in conjunction with the utility bill, and the Wayne County Public Library with locations for public announcements. Through coordination with the Wayne County SWCD, the City will develop an educational program to include:

1. Event attendance and information distribution;
2. Alternative information sources (web site);
3. Articles for a quarterly publication.

### *Reaching Diverse Audiences*

The planned public education program will use a variety of strategies in which to reach a diverse audience. The City's local strategies include reaching commercial areas through brochures and publications; reaching school age children through the Wooster Local School District System and the Wayne County SWCD; homeowners through utility bill inserts and web page articles; and the development community through the continued enforcement of the City's storm water quantity and quality control measures.

Public Education/Outreach Measurable Goals

BMP	Strategy	Measurable Goal	Responsible Party
<p><b>Existing Programs</b></p>	<p>The City of Wooster will continue with existing programs that have a positive effect on storm water education.</p>	<p><u>On-going</u></p> <ul style="list-style-type: none"> <li>• Web site with ability to identify City personnel and departments.</li> <li>• Wayne County Soil and Water Conservation District (assistance with education through the school system).</li> <li>• Wayne County Health District well/septic permitting and inspection program.</li> <li>• Wayne County Public Library (information space and meeting space availability).</li> <li>• Household hazardous waste day held in the fall of each year, large appliance collection day held in the spring of each year.</li> <li>• Advertise for used-oil and hazardous chemical collection days. Track and report annually number of residents participating and amounts received.</li> <li>• City map of the limited parcels which still have an on-site sewage system. The City has an established method of coordinating with the Wayne County Health District regarding complaints related to on-site system problems.</li> </ul>	<p>City Engineering Division Manager in cooperation with:</p> <ul style="list-style-type: none"> <li>• Webmaster</li> <li>• Wayne County SWCD</li> <li>• Wayne County Health District</li> <li>• City Engineering Clerk</li> <li>• Stark/Tuscarawas/Wayne County Solid Waste Management District</li> </ul>

BMP	Strategy	Measurable Goal	Responsible Party
<b>Partnerships</b>	<p>Utilize existing resources to extend education program.</p> <p>Wayne County Health District on-site treatment system inspection program.</p>	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>• Enter into agreement with Wayne County SWCD related to development of education program in the schools.</li> <li>• Mail flyers to homeowners with on-site sewage systems on proper care and maintenance. Identify percentage of homeowners contacted each year.</li> </ul> <p><u>5/08 – 5/09</u></p> <ul style="list-style-type: none"> <li>• Coordinate with Wooster Schools to identify curricula specific to storm water. Establish number and age group of children participating in annual storm water program curricula.</li> </ul> <p><u>5/09 – 5/12 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>• Mail flyers to homeowners with on-site sewage systems on proper care and maintenance. Identify percentage of homeowners contacted each year.</li> <li>• Annually identify and track number and age group of children participating in SWCD storm water program curricula.</li> </ul>	<p>City Engineering Division Manager in cooperation with:</p> <ul style="list-style-type: none"> <li>• Wayne County SWCD</li> <li>• Wooster Public School District Administration</li> <li>• Wayne County Health District</li> </ul>
<b>Educational Partnerships</b>	<p>Children within Wooster are part of the Wooster Public School District. Wayne County SWCD already facilitates programs within the schools which focus on environmental education.</p> <p>Additional tracking of efforts will be made to gauge program effectiveness.</p>	<p><u>5/08 – 5/09</u></p> <ul style="list-style-type: none"> <li>• Coordinate with Wooster Schools to identify curricula specific to storm water. Establish number and age group of children participating in annual storm water program curricula.</li> <li>• identify and track number and age group of children participating in SWCD storm water program curricula.</li> </ul> <p><u>5/09 – 5/12 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>• Annually identify and track number and age group of children participating in SWCD storm water program curricula.</li> </ul>	<p>City Engineering Division Manager in cooperation with:</p> <ul style="list-style-type: none"> <li>• Wayne County SWCD</li> <li>• School Administrators</li> <li>• City Engineering Clerk</li> </ul>

BMP	Strategy	Measurable Goal	Responsible Party
<b>Web Site</b>	<p>Web site will include information on current storm water activities, pertinent information related to storm water, resources available to the public.</p> <p>Provide standard space for announcements of various upcoming events.</p> <p>Provide area for receipt of comments and questions from public.</p>	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>• Update web site to include link to OEPA, Wayne County SWCD, information on how typical storm water system works (from previously published information available through USEPA), add ‘hit’ counter.</li> <li>• Continue to advertise used-oil links to County web site and hazardous chemical collection days link to County web site. Track and report annually number of residents participating and amounts received.</li> </ul> <p><u>5/08 – 5/09</u></p> <ul style="list-style-type: none"> <li>• Update web site to include means to receive information from public regarding storm water questions.</li> </ul> <p><u>5/10 – 5/11</u></p> <ul style="list-style-type: none"> <li>• Create and distribute survey to determine effectiveness of storm water program to date.</li> </ul> <p><u>5/11 – 5/12</u></p> <ul style="list-style-type: none"> <li>• Evaluate results of the survey and the effectiveness of the education program. Identify goals for future education program improvement based upon the results of the survey.</li> </ul>	<p>City Engineering Division Manager in cooperation with:</p> <ul style="list-style-type: none"> <li>• Web master</li> <li>• City Engineering Clerk</li> </ul>

BMP	Strategy	Measurable Goal	Responsible Party
<b>Library of Education Materials</b>	Develop brochures with information on current storm water activities, pertinent information related to storm water, resources available to the public.	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>Identify brochures for use at City events, the County Fair and within the Municipal Building and the Wayne County Public Library.</li> <li>Identify (develop) and distribute brochures for to commercial and industrial developments regarding updated storm water requirements and good housekeeping policies for material storage and disposal.</li> </ul> <p><u>5/08 – 5/09</u></p> <ul style="list-style-type: none"> <li>Develop information on drainage systems for provision to new developers within the City (summary of updated storm water policy). Distribute within Municipal Building.</li> </ul>	<p>City Engineering Division Manager in cooperation with:</p> <ul style="list-style-type: none"> <li>City Engineering Clerk</li> </ul>
<b>Information Distribution</b>	Existing publication with widest distribution to City residents can be used to provide timely education on the storm water system.	<p><u>5/08 – 5/12 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>Publish at least one article per year on storm water system within utility bills.</li> <li>Post current article on the storm water web page.</li> </ul>	<p>City Engineering Division Manager in cooperation with:</p> <ul style="list-style-type: none"> <li>City Engineering Clerk</li> </ul>

### ***Public Participation/Involvement***

The City of Wooster recognizes that a successful storm water program relies not only on the MS4 owners and operators and the regulatory community, but also upon the input, assistance and understanding of the general public. The City’s program includes means and methods to give the public opportunity to play an active role in both the development and implementation of the NPDES Phase II program.

The initial, five-year program for the City of Wooster is predicated largely on increasing awareness of how the City’s MS4 functions through passive information dissemination. Once the awareness has been raised, the program will be enhanced to include more active public participation. Given that, the City will reinforce existing methods for receiving information from the public, identify opportunities for civic groups to participate in the process and create use of “Adopt a” programs.

As stated earlier, the target audience for the program can be divided into three general categories: residential, commercial and the higher education community. These categories then lend themselves to further segregation. The residential category has been divided into school age children and adults, new development (through developers) and existing (through Wayne County SWCD). The commercial properties include small, medium and large properties, as well as type (restaurant and retail, for example). The higher education community includes college and university students and faculty at the College of Wooster, Ohio State Agricultural Technical Institute and Wayne College.

The City Engineering Division Manager shall be responsible for the overall management and implementation of the storm water public involvement/outreach program.

*Public Participation/Involvement Measurable Goals*

BMP	Strategy	Measurable Goal	Responsible Party
Existing Programs	<p>The City of Wooster will continue with existing programs that have a positive effect on storm water education and facilitate public involvement.</p> <p>The City’s existing complaint management process provides for receipt of information from public. A more detailed process of tracking problem resolution will be developed over the permit period.</p>	<p><u>On-going</u></p> <ul style="list-style-type: none"> <li>• Web site with ability to identify City personnel and departments.</li> <li>• City complaint record keeping and tracking process.</li> <li>• Wayne County Health District well/septic permitting and inspection program.</li> <li>• Wayne County Public Library information space and meeting space availability.</li> <li>• Wayne County SWCD programs and education and public involvement booth at Wayne County Fair.</li> <li>• Advertise for used-oil and hazardous chemical collection days. Track number of residents participating and amounts received. Used motor oil is accepted at the AutoZone on Beall Avenue.</li> <li>• Annual park/stream clean-up events coordinated through Wooster Parks Department.</li> </ul>	<p>City Engineering Division Manager in cooperation with:</p> <ul style="list-style-type: none"> <li>• City Engineering Clerk</li> <li>• Webmaster</li> <li>• Wayne County SWCD</li> <li>• Wayne County Health District</li> <li>• Stark/Tuscarawas/Wayne County Solid Waste Management District</li> </ul>

BMP	Strategy	Measurable Goal	Responsible Party
Coordination with Wayne County SWCD, schools and local colleges	The City of Wooster will continue and expand efforts for coordination on storm water education projects that facilitate public involvement.	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>• Coordinate with Wayne County SWCD representatives to identify additional programs available. Discuss coordination with future stream or park clean-up events.</li> <li>• Continue to assist in administration and organization of storm water education booth at the Wayne County Fair.</li> <li>• Identify (develop) brochures for use at City events, the County Fair, and within the Municipal Building and the Public Library.</li> <li>• Coordinate with Wooster Parks Department for annual stream/park clean-up event.</li> </ul> <p><u>5/08 – 5/012 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>• Continue to assist in administration and organization of storm water education booth at the Wayne County Fair and Library.</li> <li>• Coordinate with Wooster Parks Department for annual stream/park clean-up event.</li> </ul>	City Engineering Division Manager in cooperation with: <ul style="list-style-type: none"> <li>• Wayne County SWCD</li> <li>• School administrators</li> <li>• Stark/Tuscarawas/Wayne County Solid Waste Management District</li> </ul>
Web Site	Web site provides means for receiving information from citizens.	<p><u>On-going</u></p> <ul style="list-style-type: none"> <li>• Annually advertise used-oil link to County web site and hazardous chemical collection days link to County web site.</li> </ul> <p><u>5/08 – 5/09</u></p> <ul style="list-style-type: none"> <li>• Amend web site to provide for citizen input of information on local waterways and storm sewer systems.</li> <li>• Develop tracking system for receipt of information from the community.</li> <li>• Log information received to electronic map for development of trend patterns.</li> </ul> <p><u>5/09 – 5/12 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>• Track number of calls and web-site receipts regarding storm water programs. Track resolutions completed.</li> <li>• Log information received to electronic map for development of trend patterns.</li> </ul>	City Engineering Division Manager in cooperation with: <ul style="list-style-type: none"> <li>• Web master</li> <li>• Stark/Tuscarawas/Wayne County Solid Waste Management District</li> </ul>

### ***Illicit Discharge Detection and Elimination***

The City of Wooster has already minimized the potential of illicit discharges to the storm water system through ordinance and the use of a centralized sanitary sewer system. The assessment of creeks and waterways through the City has not yet been completed by OEPA; therefore, a determination of illicit discharge constituents has not been defined.

In addition, the City has identified the need to increase public awareness of the storm water system prior to involving the public within the illicit discharge detection and elimination minimum control. Given that, the City's program will initially use municipal staff. The City Engineer shall be responsible for the overall management and implementation of the illicit discharge detection and elimination program. As the public education and outreach system results in greater awareness of the system, local citizens will also be involved.

### ***Strategies***

The City has a geographic information system (GIS) in place that includes a map of the storm water system. The City has a defined approach for updating the map to include all new developments and annexations. Natural waterway information is obtained through the Ohio Department of Natural Resources. The GIS map will be updated to include all drainage ditches, streams and the limits of each drainage basin associated with the storm water system. The City will coordinate with the Wayne County Health District to identify on-site treatment systems within the incorporated City limits. This information will be added to the City's GIS map.

The control of illicit discharges is part of the City Code 925.06. This section establishes that the discharge of any material other than storm water into the MS4 is a violation of the regulations.

The implementation of the City's BMP for this minimum control measure will be the responsibility of the City Engineering Division Manger in conjunction with GIS manager, City Inspectors, Code Enforcement Officers, City Maintenance Division Manger, and Street Maintenance personnel.

Illicit Discharge Elimination Measurable Goals

BMP	Strategy	Measurable Goal	Responsible Party
On-going Programs	The City of Wooster will continue with existing programs that have a positive effect on storm water discharge.	<p><u>On-going</u></p> <ul style="list-style-type: none"> <li>Routine updates to the City’s Storm system and outfall map in GIS.</li> <li>Illicit Discharge Ordinance in place (925.06).</li> </ul>	City Engineering Division Manager in conjunction with GIS Manager
System Map	<p>The use of electronic maps to store information provides easier retrieval and data assessment.</p> <p>The existing map will be updated to reflect all ditches/streams and water courses and outfalls from the system.</p> <p>The Delaware General Health District has data on on-site treatment systems which needs to be added to the system map.</p> <p>Public complaints and maintenance requests will be added as a layer to the system map.</p>	<p><u>5/08 – 5/09</u></p> <ul style="list-style-type: none"> <li>Document the methodology for the addition of storm water systems, outfalls and complaint records into the GIS map on a regular basis.</li> <li>Establish program for prioritizing the drainage basins based on the likelihood of illicit connections and/or storm water runoff with higher quantities of pollutants. (Prioritization program to include population density, land use, potential for illicit discharges.)</li> </ul> <p><u>5/09 – 5/10</u></p> <ul style="list-style-type: none"> <li>Add layer to mapping product to include location of complaint/suggestion records.</li> <li>Map outfalls with dry weather flow and any other identified problem areas (streambank erosion or degradation).</li> </ul> <p><u>5/10 - 5/12 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>Map outfalls with dry weather flow and any other identified problem areas (streambank erosion or degradation).</li> </ul>	City Engineering Division Manager in conjunction with GIS Manager

BMP	Strategy	Measurable Goal	Responsible Party
System Evaluation	<p>Concurrently with mapping activities, the City will provide identification of dry weather outfalls and limited stream system characteristics.</p> <p>Comprehensive outfall survey was completed in August, 2002. Survey included mapping of outfalls, photographs of stream corridor condition, notation regarding location and condition of outfalls. This survey will be used as the baseline for comparison to findings in NPDES system evaluation and stream assessment program.</p>	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>• Quantify stream miles within each basin.</li> <li>• The Storm Drainage Policy (Chapter 925) and Site Development and Improvement Manual for the City were updated in 2007 to include an illicit discharge detection and enforcement policy. This policy will be reviewed and any required additional code amendments identified.</li> </ul> <p><u>5/08 – 5/09</u></p> <ul style="list-style-type: none"> <li>• Establish program for prioritizing the drainage basins based on the likelihood of illicit connections and/or storm water runoff with higher quantities of pollutants. (Prioritization program to include population density, land use, potential for illicit discharges.)</li> <li>• Track number of calls and web-site receipts regarding storm water problems. Track resolutions completed.</li> </ul> <p><u>5/09 – 5/10</u></p> <ul style="list-style-type: none"> <li>• Walk streams to identify and map outfalls with dry weather flow and any other identified problem areas (streambank erosion or degradation). Compare findings to results of the outfall survey from 2002.</li> <li>• Based on basin priority developed in year 2, study up to 1/3 of basins of concern to identify flow origin. Identify alternatives and methods to remove flows, if necessary.</li> <li>• Identify and map outfalls with dry weather flow and any other identified problem areas (streambank erosion or degradation).</li> </ul> <p><u>5/10 – 5/12 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>• Conduct annual dry weather inspections of identified outfalls. Track results.</li> <li>• Identify and map outfalls with dry weather flow and any other identified problem areas (streambank erosion or degradation).</li> <li>• Continue study up to 1/3 of basins of concern to identify flow origin. Identify alternatives and methods to remove flows, if necessary.</li> </ul>	City Engineering Division Manger in conjunction with Maintenance Division Manger and City Inspectors

BMP	Strategy	Measurable Goal	Responsible Party
Policy and Enforcement	The City already has an updated storm water policy in place which addresses illicit discharges. This best management practice will serve to fill in any missing information.	<u>5/08 – 5/09</u> <ul style="list-style-type: none"> <li>Establish illicit discharge identification program.</li> </ul> <u>5/09 – 5/10</u> <ul style="list-style-type: none"> <li>Train building inspectors, code enforcement officers and street maintenance personnel on illicit discharge identification.</li> </ul>	Engineering Division Manager in conjunction with Maintenance Division Manager

### ***Construction Site Runoff Control***

The City of Wooster recognizes that sediment laden runoff from construction sites, if unchecked, can deposit more in a stream than would be deposited there over the course of decades from other land use types. The resulting siltation, and other pollutants, can cause physical, chemical, and biological harm to the waterways.

#### ***Strategies***

The City relies on a two-fold approach to construction site runoff control. First, the City reviews the construction plans and the SWP3 including the erosion and sediment control plan for all submitted construction projects within the City. Second, per Section 8 of the City's updated Site Development and Improvement Manual, the City has a policy for inspection of all construction in the City. Construction must be completed to the satisfaction of the inspector. The inspector may stop construction or request changes be made to comply with City standards.

The City will not need to enhance existing City Code to reflect the 1-acre or greater of disturbed area requirement for erosion and sedimentation control programs, since current code reflects this limit. The enforcement of the erosion and sedimentation control policy has been codified to reflect enforcement by the City of Wooster, rather than by the OEPA, through the end of land disturbance. The web site will be updated to reflect the ability to receive information from the general public as part of the permit compliance BMPs.

The Engineering Division Manager shall be responsible for the overall management and implementation of the construction site runoff control program.

*Construction Site Runoff Control Measurable Goals*

BMP	Strategy	Measurable Goal	Responsible Party
On-going Programs	The City of Wooster will continue with existing programs that have a positive effect on storm water run off mitigation.	<p><u>On-going</u></p> <ul style="list-style-type: none"> <li>• Site Plan Review by City Engineer.</li> <li>• City inspection of improvements provided by Code Section 11 of the Site Development and Improvement Manual.</li> <li>• Sanctions for violation of codes in Section 1105 of the Manual.</li> <li>• Complaint process through contact with City Hall as specified in Section 1108 of the Manual.</li> </ul>	City Engineering Division Manager in conjunction with City Inspectors
Policy and Enforcement	The City of Wooster code and updated Site Development and Improvement Manual were updated in 2007 in compliance with the State’s General Construction Permit for NPDES (OHC000002).	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>• The Storm Drainage Policy (Chapter 925) and Site Development and Improvement Manual for the City were updated in 2007 to include erosion and sedimentation control requirements in compliance with the General Construction Permit (GCP). The manual will be reviewed to ensure compliance with all aspects of the GCP.</li> <li>• Provide development communities with informational packet of erosion and sedimentation ordinance and requirements.</li> </ul> <p><u>5/08 – 5/09</u></p> <ul style="list-style-type: none"> <li>• Formalize procedure for addressing complaints received by the City.</li> <li>• Train City Inspectors to identify construction runoff problems.</li> </ul> <p><u>5/09 – 5/10</u></p> <ul style="list-style-type: none"> <li>• Update web site to include educational information for public, detailing problems related to construction site runoff and the means for notifying City regarding potential violations.</li> <li>• Develop mapping of complaint/suggestion records.</li> </ul>	<p>City Engineering Division Manager in conjunction with:</p> <ul style="list-style-type: none"> <li>• City Inspectors</li> <li>• Webmaster</li> </ul>

BMP	Strategy	Measurable Goal	Responsible Party
Inspection Services	The City of Wooster has an established construction site inspection program as required by the State's Construction Permit for NPDES (OHC000002).	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>Track number of sites in compliance, partially in compliance and out of compliance.</li> <li>Document number of enforcement actions taken by type.</li> </ul> <p><u>5/08 - 5/09</u></p> <ul style="list-style-type: none"> <li>Train City Inspectors to identify construction site run-off problems.</li> <li>Continue to track number of sites in compliance, partially in compliance and out of compliance. Goal is to show increases in compliance or partial compliance and reductions in non-compliance.</li> <li>Document number of enforcement actions taken by type.</li> </ul> <p><u>5/09 – 5/12 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>Continue to track number of sites in compliance, partially in compliance and out of compliance. Goal is to show increases in compliance or partial compliance and reductions in non-compliance.</li> <li>Document number of enforcement actions taken by type.</li> </ul>	<p>City Engineering Division Manager in conjunction with:</p> <ul style="list-style-type: none"> <li>City Inspectors</li> </ul>

### ***Post Construction Storm Water Management In New Development/ Redevelopment***

The City proposes to address the post-construction storm water management in new development and redevelopment with structural and non-structural BMPs. As part of this minimum control, the City seeks to effectively manage quantities of post development flow to minimize “flashy” stream characteristics.

The City has a ‘storm water policy’ and updated Site Development and Improvement Manual that addresses both water quality and water quantity issues. The City has adopted this policy in the form of an enabling ordinance (Chapter 925) and updated Site Development and Improvement Manual (2007). The section includes design of closed systems, as well as detention areas. There is a requirement for the design of debris-control structures.

In addition, the City has a formalized policy regarding the preservation of existing waterways and maintenance therein. This policy takes the form of dedicated easements, dedicated permanent buffer zones on all streams and intermittent water courses, homeowner association maintenance

requirements, etc. The City has historically accepted dedicated drainage management easements. The City also has maximum lot coverage requirements in place, which limit the amount of imperviousness by land use type.

The City has a City-wide storm water capital improvement plan which includes projects planned for construction over the next ten years. The Engineering Division Manager is responsible for coordinating input and review of this CIP plan on an annual basis.

*Post Construction Storm water Management Measurable Goals*

BMP	Strategy	Measurable Goal	Responsible Party
On-going Programs	The City of Wooster will continue with existing programs that have a positive effect on storm water discharge quantity and quality.	<u>On-going</u> <ul style="list-style-type: none"> <li>• Water quantity and quality design provision in Section 9 of the 2007 Site Development and Improvement Manual.</li> <li>• Water course protection (Code 925.07).</li> <li>• Operation and Maintenance Policy including enforcement actions as provided in the 2007 Site Development and Improvement Manual.</li> <li>• Annual CIP planning committee meetings for updates to 10-year storm water CIP.</li> </ul>	City Engineering Division Manager
Retention/ Detention	The City has an updated policy on retention/detention with regards to both water quantity and water quality issues as specified in their Site Development and Improvement Manual.	<u>5/07 – 5/08</u> <ul style="list-style-type: none"> <li>• Prepare and distribute informational packet to development community regarding updated site development manual.</li> </ul>	City Engineering Division Manager

BMP	Strategy	Measurable Goal	Responsible Party
Stream Protection	The streams identified within Wooster are considered by OEPA to be in an impaired status. This BMP will create means and methods for improving the quality of the streams and ditches within the community.	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>• Conduct preliminary coordination meeting with City staff to consider adoption of a stream corridor protection zone policy which specifies approved uses and vegetation within the established permanent stream buffer zones.</li> </ul> <p><u>5/08 – 5/09</u></p> <ul style="list-style-type: none"> <li>• Update stream protection policy, if needed to include approved uses and vegetative plantings within the established permanent stream buffer zones, maintenance and responsibility.</li> <li>• Establish a program to prioritize basins of concern.</li> <li>• Develop an assessment program for streams within City limits.</li> </ul> <p><u>5/09 – 5/10</u></p> <ul style="list-style-type: none"> <li>• Hold stakeholder meetings for discussion of proposed stream corridor protection policy.</li> <li>• Finalize proposed stream corridor protection policy.</li> <li>• Require development community to identify stream miles affected, buffer zones.</li> <li>• Walk stream miles within top third of prioritized basins and provide an assessment of physical characteristics and system outfalls.</li> </ul> <p><u>5/10 – 5/11</u></p> <ul style="list-style-type: none"> <li>• Walk stream miles within second third of prioritized basins and provide an assessment of physical characteristics and system outfalls.</li> </ul> <p><u>5/11 – 5/12</u></p> <ul style="list-style-type: none"> <li>• Walk stream miles within final third of prioritized basins and provide an assessment of physical characteristics and system outfalls.</li> <li>• Identify capital improvements, where possible, in basins of concern.</li> </ul>	City Engineering Division Manager

BMP	Strategy	Measurable Goal	Responsible Party
Operation and Maintenance of MS4	<p>Post-development operation and maintenance of all facilities has been identified and responsibility characterized in Section 10 of the City's Site Development and Improvement Manual.</p> <p>Proper training of staff for maintenance and inspection of systems will be on-going effort.</p>	<p><u>5/07 – 5/12 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>• Train staff on proper maintenance of system through existing State Agency training programs (ODNR, OEPA).</li> </ul>	<p>City Engineering Division Manager in conjunction with the City Maintenance Division Manager and City Inspectors</p>

## ***Pollution Prevention/Good Housekeeping for Municipal Operations***

Wooster has a variety of programs in place to provide 'good housekeeping'. These programs include the following:

### Operation and Maintenance

The City has numerous storm water-related programs. The staff maintenance schedule includes cleaning of catch basins, removal of debris in swales, ditches and culverts and responding to emergency calls. The staff plans to establish a log system for identifying when curb inlet maintenance was last completed.

The City also has a street sweeping program. The City currently sweeps all streets within the City a minimum of two times per year. In addition, downtown streets are swept on a weekly basis during the period from May through October. The City staff plans to establish a log system for tracking street sweeping activities.

The ditches, swales and catch basins are cleaned when time permits, or if there is a complaint called into the City. Detention/retention basins are checked during normal rounds and mowed as necessary.

The City does provide snow removal. The City currently owns 6 salt trucks for road maintenance during snow conditions. Salt and grit for roadway applications is stored at the City's maintenance facility located at 1151 Mechanicsburg Road.

The City conducts its own vehicle maintenance and large truck maintenance at the service garage. The Service Building has an interceptor on the floor drains to collect pollutants prior to their discharge to the storm sewer system.

The maintenance area also includes a tank for used oil collection and a number of 55-gallon plastic containers which are used for recycling and disposal of cans, used rags, etc.

### Employee Training

The City of Wooster currently employs a maintenance division manager, garage supervisor, four full time equipment operators and five laborers. On-the-job training is provided for employees regarding spill prevention and clean-up. There has been little staff turn over to merit a detailed training program beyond that provided.

*Pollution Prevention/Good Housekeeping Measurable Goals*

BMP	Strategy	Measurable Goal	Responsible Party
On-going Programs	The City of Wooster will continue with existing programs that have a positive effect on staff storm water education.	<p><u>On-going</u></p> <ul style="list-style-type: none"> <li>• Proper disposal of waste oils and greases used in City maintenance facilities.</li> <li>• Salt and grit storage and street application.</li> <li>• Street sweeping.</li> <li>• Catch basin cleaning.</li> <li>• Annual leaf collection program.</li> <li>• Removal of debris from swales, ditches and culverts.</li> <li>• Detention/Retention basin checks.</li> <li>• Fertilization of park areas conducted by in-house staff and contractors that have been trained in proper application of fertilizers.</li> <li>• Weed control applied along guard rails by registered contractor.</li> <li>• Contract pest (mosquito) control by registered contractor.</li> <li>• Inventory tracking program.</li> </ul>	Maintenance Division Manager and Parks Division Manager
Training	The City of Wooster has largely used on-the-job training of employees. This strategy will make use of existing State Agency programs to provide additional training.	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>• Continue training of City personnel on proper disposal techniques.</li> <li>• Develop educational program for employees regarding good housekeeping.</li> <li>• Inventory current City practices in maintenance areas.</li> <li>• Develop appropriate signage at City facilities reflecting good maintenance techniques.</li> </ul> <p><u>5/08 – 5/12 (throughout permit cycle)</u></p> <ul style="list-style-type: none"> <li>• List the number of employees that have been trained on proper disposal techniques. List classes taken, as well as offeror.</li> </ul>	Maintenance Division Manager

BMP	Strategy	Measurable Goal	Responsible Party
On-going Maintenance	<p>Although the City provides adequate maintenance of the system, tracking actual maintenance activities will be developed to provide assurance that the asset is being maintained.</p> <p>Existing programs will be reviewed and refined, if necessary, for maximum surface water benefit.</p>	<p><u>5/07 – 5/08</u></p> <ul style="list-style-type: none"> <li>• Inventory current City practices in maintenance areas</li> <li>• Develop appropriate signage at City facilities reflecting good maintenance techniques.</li> <li>• Develop work order system for addressing and tracking citizen complaints and concerns.</li> <li>• Review salt and grit placement during snow events.</li> <li>• Review effectiveness of street sweeping program; currently completed on overall basis 2 times per year with downtown area swept 1 time per week from May through October.</li> </ul> <p><u>5/08 – 5/12 (throughout permit period)</u></p> <ul style="list-style-type: none"> <li>• Document the number of outfalls and curb inlets cleaned annually.</li> <li>• Document the amount of deicing salt applied to streets. Document snowfall.</li> <li>• Document number of complaints/concerns received and final disposition.</li> </ul> <p><u>5/09 – 5/10</u></p> <ul style="list-style-type: none"> <li>• Evaluate potential alternate methodology for weed control.</li> </ul>	Maintenance Division Manager