



**CITY OF HILLIARD
STORM WATER MANAGEMENT PLAN**

Permit Period 2009-2013

December 15, 2009

Table of Contents

Certification	ii
Executive Summary	1
Legal Authority.....	1
Permit Coverage Area.....	1
Reporting Requirements.....	1
Storm Water Management Plan (SWMP)	1
Public Education/Outreach	3
Education Materials and Strategies	3
Reaching Diverse Audiences.....	3
Public Education/Outreach Measurable Goals	4
Public Participation/Involvement	5
Strategies	5
Public Participation/Involvement Measurable Goals	6
Illicit Discharge Detection and Elimination	7
Strategies	7
Illicit Discharge Elimination Measurable Goals	8
Construction Site Runoff Control.....	9
Strategies	9
Construction Site Runoff Control Measurable Goals.....	10
Post Construction Storm Water Management in New Development/ Redevelopment.....	11
Post Construction Storm Water Management Measurable Goals	12
Pollution Prevention/Good Housekeeping for Municipal Operations.....	13
Operation and Maintenance.....	13
Employee Training	13
Pollution Prevention Measurable Goals	14

FIGURES

Figure 1- Table of Organization

CITY OF HILLIARD

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.”

Clyde R. Seidle, P.E.
Director of Public Service
City of Hilliard, Ohio

Executive Summary

The City of Hilliard is required to submit a storm water management plan (SWMP) in accordance with 40 CFR 123.25 and 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, OHQ000002, in effect from 2009-2013.

Legal Authority

The Charter and Code of the City of Hilliard provides the City with the authority to control the quality of separate storm water discharge to its storm sewer system. The City of Hilliard has both the fiscal resources and legal authority to fully implement its Storm Water Management Plan. The City has adopted this Storm Water Management Plan for the permitting period, 2009-2013.

Permit Coverage Area

The SWMP traverses all areas within the incorporated City limits. The City of Hilliard has an estimated population of 30,124 (US Census Bureau, 2007) and encompasses approximately 12 square miles.

The City of Hilliard is largely residential, with office/commercial non-residential areas concentrated along Leap Road, Interstate 270 and within the Old Hilliard portion of the City. Some industrial areas are located on the east side of the City, along the I-270 corridor.

Reporting Requirements

The City of Hilliard will submit its required update annually during 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.

A summary of the activities the City will undertake during the subsequent annual reporting cycle 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 polluted storm water discharged to waterways in the City of Hilliard. The City is located within two watersheds: the Scioto River watershed and the Olentangy Watershed (Hydrologic Unit Code (HUC) 05060001 080). These assessment units are very large, and do not reflect individual tributaries serving Hilliard. Hilliard-specific major waterways are: Bartholomew Run to the east (which serves the majority of Hilliard) and the Scioto River to the west.

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. A table of organization outlines who will be responsible for completing each Minimum Control Measure under this permit (Figure 1).

Public Education/Outreach

The City of Hilliard 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 Hilliard and non-homeowners).

The program for the City of Hilliard is predicated largely on increasing awareness of how the City's municipal separate storm sewer system (MS4) functions through information dissemination. As awareness increases, the program will be enhanced to include more active public participation.

Public education and outreach programming must reach 50% of the City's total population over the permit term. Additional documentation of number of people reached through each task is required by the permit.

Education Materials and Strategies

The City of Hilliard has a number of existing programs specifically for the dissemination of information to its citizens. These include a website, a publication provided to all residents and use of the City Hall for public announcements and educational materials. The City developed an educational program to include:

1. Alternative information sources (website);
2. On-site sewage treatment information for residents;
3. Educational storm water articles for publication and brochure distribution;
4. Educational materials to be maintained at City Hall;
5. Participation at the City's major events (Earth Day, Arbor Day, etc.).

Reaching Diverse Audiences

The public education program uses a variety of strategies to reach a diverse audience. The City's local strategies include reaching commercial areas through brochures and publications, reaching school age children through the Hilliard City School System and Franklin County Soil and Water Conservation District (FSWCD), reaching homeowners through City publications, website, and FSWCD, and reaching the development community through the Stormwater Design Manual available on the City's website. As a result of this outreach program, diverse audiences will be informed of the importance of reducing storm water pollution, ways they can incorporate pollution reduction in their daily lives, and opportunities for individual or group involvement.

The City's Director of Public Service, Operations Division Manager, Clerk of Council, City Clerk, GIS Administrator, IT Manager, and FSWCD are responsible for the overall management and implementation of the storm water public education/ outreach program.

Public Education/Outreach Measurable Goals

BMP	Strategy	Measurable Goal	Responsible Party
Existing Programs	<p>The City of Hilliard will continue with existing programs that have a positive effect on storm water education.</p> <p>Local watershed groups will continue to provide services for residents within the City.</p>	<p><u>On-going</u></p> <ul style="list-style-type: none"> • Maintain the storm water page on the City website to educate the public about storm water issues and to provide the public with a way to contact the City with storm water concerns. • Maintain use of the City Hall for educational materials. • Annually, using general literature from the Franklin County Board of Health, educate homeowners with on-site sewage systems on the proper care and maintenance of their system. Identify percentage of homeowners contacted each year. • Annually, identify number and age of children participating in storm water curricula. • Annually, advertise used oil and hazardous chemical collection days and provide link to SWACO and the Franklin County web site. Track number of residents participating. • Distribute brochures and publish at least one article per year on storm water within a City publication. Identify the number of brochures/articles distributed and the method of distribution. Annual themes for the five-year period will include: Construction Site Runoff, Maintenance of BMPs, Homeowner Pollution Prevention, Illicit Discharge Detection and Elimination, and Volume Reduction through Rain Gardens and Rain Barrels. • Annually, determine the effectiveness of the storm water education program and modify as necessary. 	<p>City of Hilliard, Director of Public Service, Operations Division Manager, Clerk of Council, City Clerk, GIS Administrator, IT Manager, and FSWCD</p>

Public Participation/Involvement

The City of Hilliard 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 City's public involvement/participation programming must include at least five (5) public involvement activities over the permit term (one per permit year). The permit requires documentation of the number of people participating in events. This will include maintaining involvement and public education components at the following established events: Earth Day and Arbor Day.

Strategies

The program for the City of Hilliard is predicated largely on increasing awareness of how the City's MS4 functions through passive information dissemination. Since 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 and identify opportunities for civic groups to participate in the process. The City will continue to participate in an established public involvement event on an annual basis, in coordination with FSWCD.

As stated earlier, the target audience for the program can be divided into three general categories: residential, commercial and general public. 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. The commercial properties include small, medium and large properties, as well as type (restaurant and retail, for example).

The Director of Public Service, Operations Division Manager, Certified City Arborist, Director of Lands and Buildings, and FSWCD are responsible for the overall management and implementation of the storm water public involvement/outreach program, through coordination with the FSWCD.

Public Participation/Involvement Measurable Goals

BMP	Strategy	Measurable Goal	Responsible Party
Existing Programs	The City of Hilliard will continue with existing programs that have a positive effect on storm water education.	<u>On-going</u> <ul style="list-style-type: none"> • Maintain the storm water page on the City website to educate the public about storm water issues and to provide the public with a way to contact the City with storm water concerns. • Maintain use of City Hall for educational materials. • Continue to participate in established public involvement events on an annual basis. Track number of residents participating and dates of events. • Continue to advertise used-oil link and hazardous chemical collection days on City web site. Track number of residents participating. • Continue to track number of calls and web-site receipts regarding storm water programs. Track resolutions completed. 	City of Hilliard, Director of Public Service, Operations Division Manager, Certified City Arborist, Director of Lands and Buildings, and FSWCD

Illicit Discharge Detection and Elimination

The City of Hilliard has already minimized the potential for illicit discharges to the storm water system through development of an ordinance and abatement program. The water quality assessment of creeks and waterways within the City has been largely completed by FSWCD and there were only two potential areas where HSTS may be contributing to pockets of pollution.

The City has initiated an education program to increase public awareness of the storm water system and illicit discharge control. The City will continue to make available an illicit discharge detection and elimination brochure at City offices and the public library. As the public education and outreach program results in greater awareness of the system, local citizens may become involved using the website to report illicit discharge locations.

Strategies

The City has completed a geographic information system (GIS) map for the urbanized area, including the incorporation of storm water system information and automated maintenance (service) tracking program. The City will continue to maintain GIS updates to their map and the Service Request Center.

The City coordinated with the Franklin County Board of Health to identify on-site treatment systems (HSTS) within the incorporated City limits. This information will be added to the GIS product during the course of the permit term.

The City will continue to coordinate with FSWCD to conduct dry weather screening of necessary outfalls over the permit term. As part of the dry weather screening, samples will be collected where there are signs of illicit discharge (visual or odor) and in such cases, potential sources identified. In previous stream assessments conducted by FSWCD within the City of Hilliard, potential areas where failed HSTS may be resulting in pockets of pollution were discovered and will be investigated.

The control of illicit discharges is part of the City Code 949.02. This section requires that with certain exceptions, only discharge composed entirely of storm water is permitted in the storm sewers.

The City's Operations Division Manager, Customer Service Representative, Chief of Police, Chief of Fire, Franklin County Board of Health (FCBOH) and FSWCD are responsible for the implementation of the illicit discharge detection and elimination program.

Illicit Discharge Detection and Elimination Measurable Goals

BMP	Strategy	Measurable Goal	Responsible Party
On-going Programs	The City of Hilliard 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"> • Document the number of dry weather outfalls screened, number of dry weather flows identified, and number of illicit discharges identified and eliminated. Provide schedules for elimination of illicit connections as identified. Summarize any storm sewer mapping updates (including HSTS mapping). • Train building inspectors, code enforcement officers and street maintenance personnel on illicit discharge identification. • Track number of calls and web-site receipts regarding the storm water program. Track resolutions completed. • Continue to distribute a public education flyer that addresses storm water pollution and illicit discharges. Continue to make available to residents attending public events and at the public library. • Continue mapping of complaint/suggestion records and locations of on-site systems. 	City of Hilliard, Operations Division Manager, Customer Service Representative, Chief of Police, and Chief of Fire
System Evaluation	The City will coordinate with FSWCD to evaluate their system.	<p><u>12/2013</u></p> <ul style="list-style-type: none"> • Conduct dry-weather screening of necessary outfalls and investigate areas of potential HSTS failure, as identified by FSWCD during their stream assessments within the City. 	City of Hilliard, Operations Division Manager, FCBOH, FSWCD

Construction Site Storm Water Runoff Control

The City of Hilliard recognizes that sediment laden runoff from construction sites, if unchecked, can deposit more sediment and pollutants 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.

Additional documentation regarding construction site runoff control is required under the permit, as indicated in the measurable goals section for this minimum control measure.

Strategies

The City relies on a two-fold approach to construction site runoff control. First, the City reviews the erosion and sediment control plans for all submitted construction drawings within the City. Second, Section 1181.11 of the City Code provides 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, i.e. enforcement. The City's Service Request Center may be used by residents for reporting any issues observed during construction.

The Director of Public Service, Deputy City Engineer, Chief Construction Inspector, and Construction Inspector are responsible for the overall management and implementation of the construction site runoff control program.

Construction Site Storm Water Runoff Control Measurable Goals

BMP	Strategy	Measurable Goal	Responsible Party
On-going Programs	<p>The City of Hilliard will continue with existing programs that have a positive effect on storm water run off mitigation.</p> <p>The City has a service request tracking program which can be used by both the public and City staff to track service/and/or maintenance requests.</p>	<p><u>On-going</u></p> <ul style="list-style-type: none"> • Maintain and update the service request program to track construction site violations and complaints. • Document the number of applicable sites in the City’s jurisdiction, number of pre-construction storm water pollution prevention plan reviews performed, number and frequency of site inspections, number of violation letters issued, number of enforcement actions taken, and number of complaints received and followed up on. • Train City Inspectors to identify run-off problems. • Educate the public on ways to notify the City of potential violations. 	City of Hilliard, Director of Public Service, Deputy City Engineer, Chief Construction Inspector, and Construction Inspector

Post-Construction Storm Water Management in New Development/Redevelopment

The City addresses the post-construction storm water management in new development and redevelopment with structural and non-structural BMPs. Areas within the Big Darby Creek Watershed shall meet the requirements of the General Permit for Storm Water Discharges Associated with Construction Activity within the Big Darby Creek Watershed under OEPA Permit No. OCH10001. Post-construction storm water management in all areas shall meet the requirements specified in the OEPA Construction General Permit, OHC00003, and the City of Hilliard Stormwater Design Manual. As part of this minimum control, the City seeks to effectively manage quantities of post development flow. The City of Hilliard Stormwater Design Manual contains complete storm water management and design requirements. The manual provides guidance on the most effective structural and non-structural BMPs for development sites, which will help protect the City's waterways from adverse impacts of storm water runoff.

The Director of Public Service, Deputy City Engineer, Chief Construction Inspector, Construction Inspector, and City Planner are responsible for the overall management and implementation of the post-construction storm water management program.

Post-Construction Storm Water Management Measurable Goals

BMP	Strategy	Measurable Goal	Responsible Party
On-going Programs	The City of Hilliard 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"> • Continue to identify capital improvements, where applicable, in basins of concern. • Train staff on proper maintenance of system through existing State Agency training programs (ODNR, OEPA). • Document the number of sites in the City’s jurisdiction requiring post-construction controls, number of pre-construction storm water pollution prevention plans reviews performed, number and frequency of inspections performed to ensure as built per requirements, number of long-term operation and maintenance (O&M) plans developed and agreements in place, number of violation letters issued, and number of enforcement actions taken. • In applicable areas, maintain enforcement of stream setback requirements per the Big Darby Creek Watershed Construction General Permit. 	City of Hilliard, Director of Public Service, Deputy City Engineer, Chief Construction Inspector, Construction Inspector, and City Planner

Pollution Prevention/Good Housekeeping for Municipal Operations

Operation and Maintenance

The City of Hilliard has a variety of procedures in place to provide ‘good housekeeping’. These procedures include the following:

- The proper disposal of waste oils and greases used in the City’s maintenance facilities;
- The careful use of salt and grits during snow removal periods using measures appropriate to conditions;
- The enclosed storage of all City salt and grits;
- Spraying for weed control;
- Very limited pesticide/herbicide use on City-owned property;
- Catch basin cleaning, removal of debris from swales, ditches and culverts;
- Maintenance of City-owned storm pipe;
- Twice annual street sweeping, dependent on staff availability.

The City will establish and update annually their Pollution Prevention Plan for their maintenance facility.

Employee Training

The City of Hilliard currently takes advantage of any training opportunities presented by state or local agencies whenever possible.

The Operations Division Manager and Crew Leaders are responsible for the overall management and implementation of the pollution prevention/good housekeeping program.

Pollution Prevention Measurable Goals

BMP	Strategy	Measurable Goal	Responsible Party
On-going Programs and Maintenance	The City of Hilliard will continue with existing programs that have a positive effect on storm water education and enhance tracking to ensure the protection of natural resources within the City.	<p><u>On-going</u></p> <ul style="list-style-type: none"> • Continue to list the number of employees that have been trained on proper disposal techniques. List classes taken, as well as offeror. • Continue to document the amount of deicing salt applied to streets. • Continue to document number of complaints/concerns received and the response given. • Continue to document the number of outfalls and curb inlets cleaned annually, as well as all other street sweeping activities. Document the amount of material collected and properly disposed of. • Document maintenance activities, schedules, and long-term inspection procedures for controls to reduce pollution to the City's MS4. • Document the amount of pesticides, herbicides, and fertilizers used annually. • Summarize any new or existing flood management projects that were assessed for impacts on water quality. • Document proper disposal of waste oils and grease used in City maintenance facilities. • Annually update the Pollution Prevention Plan for the City's municipal maintenance facility. 	City of Hilliard, Operations Division Manager, Crew Leaders
Maintenance Facility Pollution Prevention Plan	The City of Hilliard will create a Pollution Prevention Plan for its municipal maintenance facility.	<p><u>12/2009</u></p> <ul style="list-style-type: none"> • Prepare Pollution Prevention Plan for the City's municipal maintenance facility. 	City of Hilliard, Operations Division Manager