

**STORM WATER QUALITY MANAGEMENT PLAN  
PART C  
PROGRAM IMPLEMENTATION**

AS REQUIRED BY:

327 IAC 15-13

Rule 13 NPDES Permit for Municipal Separate Storm Sewer Systems

PREPARED FOR:



NPDES Storm Water Permit #INR040039

PREPARED BY:

**WESSLER**  
ENGINEERING

*More than a Project™*

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SUBMITTED TO IDEM:

October 1, 2010



*More than a Project™*

October 1, 2010

Reggie Korthals, MS4 Coordinator  
IDEM – Office of Water Quality  
100 N. Senate Ave.  
MC 65-42 IGCN 1255  
Indianapolis, IN 46204-225

Dear Ms. Korthals:

On the behalf of the City of Greenfield, Wessler Engineering has reviewed Greenfield's Part B report. Pertinent information on known pollution problem areas, on-going monitoring plans, and other baseline characteristic information was collected during the development of the Part B report and was included and incorporated into the original Part C program. It is not necessary to revise or update the Part B report.

In addition, Wessler has reviewed and updated Greenfield's Part C plan to revise BMPs and measureable goals. A revised copy of the plan has been submitted with this annual report.

If you have any questions or need any additional information, please don't hesitate to give me a call at 317-788-2453.

Sincerely,

WESSLER ENGINEERING

A handwritten signature in cursive script that reads 'Mary Atkins'.

Mary Atkins  
Project Manager

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- Implementation Milestones Spreadsheet
- Storm Water Budget and Funding Sources

**Recordkeeping for Annual Reports**

- Programmatic Indicators Summary Table
- Best Management Practices Tracking Table

## Chapter 1 - Part C Overview

### Introduction

As required by 327 IAC 15-13 (Rule 13), the City of Greenfield obtained an NPDES permit for its Municipal Separate Storm Sewer System (MS4) in 2003. The permit was renewed in 2008. As a requirement of the permit, the City must continue to implement a Storm Water Quality Management Plan (SWQMP), which has been divided into the following three phases:

- Part A - Notice of Intent (NOI) and Permit Application
- Part B - Baseline Characterization and Report
- Part C - Program Implementation

In compliance with Rule 13, Greenfield's original Part A was submitted to the Indiana Department of Environmental Management (IDEM) in 2003. A Notice of Sufficiency and permit number INR040039 was issued by IDEM. The Part B characterization was submitted in May 2004, within 180 days of the submittal date of Part A. The Part B report has been incorporated into the Part C report. Part C of the storm water program was developed and submitted to IDEM within 365 days of the Part A submittal. The permit expires every 5 years and must be renewed. For permit renewal, Greenfield's NOI and Part A were submitted in 2008 to the Indiana Department of Environmental Management. The Part C report must also be revised at least once every 5 years.

### Purpose

The purpose of this report is to build off of the baseline characterization summarized in Part B in the development of the Part C implementation of the SWQMP. Pertinent information that was collected in the Part B report has been incorporated into the Part C report. On-going characterization is included as Chapter 2 of this report.

This report also includes a detailed program description including Best Management Practices (BMPs) and measurable goals, for each of the six (6) Minimum Control Measures (MCMs). Following is a list of the MCMs:

- Public Education and Outreach
- Public Participation and Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Run-off Control
- Post Construction Storm Water Run-off Control
- Municipal Operations Pollution Prevention and Good Housekeeping

### Programmatic Indicators

The programmatic indicators are summarized in the Recordkeeping for Annual Reports section of this report. The MS4 operator will use the Programmatic Indicators Summary Table to compile programmatic indicator information and evaluate the success of the SWQMP over time. Additional details regarding the collection of programmatic indicator data are included with each minimum control measure.

**Minimum Control Measures**

Chapter 4 includes details of each BMP including: descriptions, measurable goals, responsible entity, schedule, reporting and recordkeeping, minimum control measures, target constituents (if applicable), and whether the BMP is new or existing. An initial evaluation of Greenfield's storm water program was conducted in the Part B report and continued in this report. Current programs, as well as programs implemented as part of this SWQMP are summarized in Chapter 4 of this report. BMPs are arranged by MCM. Some BMPs apply to multiple MCMs, as indicated on the BMP detail page.

In addition, summary tables used to quantify measurable goals and programmatic indicators are included in the Record Keeping section of this report. The City of Greenfield will use these summary tables to track improvements in measurable goal information each year of the permit term. Narrative descriptions of the SWQMP program implementation of each BMP will also be included in annual reports.

**Timetable for Implementation Milestones**

Included in Chapter 4, each BMP description contains a schedule for the BMP implementation. In general, a timetable for implementation milestones is included as an attachment.

**Budget and Funding Sources**

Included as an attachment to this report is a table summarizing each selected BMP with a corresponding annual cost estimate and potential or actual funding sources.

## Chapter 2 – Ongoing Characterization

In general, the land uses within Greenfield’s MS4 area are:

55%	Residential
20%	Business/Commercial/Schools
15%	Parks, Recreational and Wooded/Undeveloped
10%	Industrial

Potential activities and storm water pollutants associated with Residential, Business/Commercial/Schools, and Industrial land uses are as follows:

### Residential Land Use

- The storage, use and disposal of common household chemicals.
- Application of pesticides and fertilizers on lawns and gardens.
- Automobile maintenance activities (car washing, oil changing, etc.)
- Sediments and other pollutants associated with disturbed soil during construction of residential neighborhoods

### Business/Commercial/Schools Land Use

- The storage, use and disposal of cleaners, solvents, paints and other similar chemicals.
- Application of pesticides and fertilizers during landscape maintenance activities.
- Oils, greases and other automobile fluids deposited in parking lots.
- Improper waste disposal.
- One specific site was identified as a potential source of storm water pollution. Jack & Sons Auto Salvage, located at 318 E. South Street. This business is directly adjacent to Potts Ditch. This site should be regulated by the state as a salvage yard.

### Industrial Land Use

- The storage, use and disposal of cleaners, detergents, solvents, paints and other similar chemicals generally used and stored in bulk.
- Application of pesticides and fertilizers during landscape maintenance activities.
- Oils, greases and other automobile fluids deposited in parking lots.
- Other potential pollutants specific to activities conducted at each industrial facility (fuels, petroleum products, metals, etc.)

All industrial areas manage their storm water runoff with detention facilities and are regulated by IDEM through NPDES permits where annual storm water monitoring is required. The MS4 will not conduct additional monitoring. If necessary, the MS4 will review available monitoring data from the industries.

Monitoring at representative locations is an efficient way to monitor water quality based on general land uses. Monitoring will provide a method for tracking water quality improvements that result from implementing BMPs that were developed in Part C of the SWQMP.

The following representative outfalls have been selected for monitoring purposes:

- Little Brandywine Creek – residential area where there is a pond discharge
- Brandywine Creek – residential area where there is a pond discharge
- Potts Ditch – residential/commercial area where there is no retention

All three locations will be sampled annually for pH, temperature, and ammonia during a rain event in the spring. Visual inspections will also be implemented during wet weather for signs of storm water pollution.

Dry weather inspections will be conducted at all outfall locations and will utilize the same monitoring methods as used for wet weather sampling. This will be further developed as the Illicit Discharge Minimum Control Measure in Part C of this program.

### **Proposed Monitoring Program**

The Baseline Monitoring Program will include a combination of visual inspections and physical monitoring. Monitoring will occur during wet weather conditions. Details of the monitoring program are outlined in Appendix A. The following items generally describe the outfall monitoring program:

- Outfalls will be inspected two times a year. Wet weather sampling will be conducted in the spring and dry weather inspections will be conducted in the summer.
- At least two Greenfield municipal employees will be trained to perform storm water analyses at monitoring locations, collect storm water samples, conduct visual inspections and fill out the Visual Inspection and Physical Monitoring Form. This form is included in this report. The goal of this monitoring plan is to maintain a certain amount of consistency with completing reports and interpreting conditions to be reported. The trained municipal employees will follow the criteria listed in this program and routinely communicate with the MS4 operator regarding recordkeeping and reporting.
- When an inspection reveals or detects an unfavorable environmental problem, a follow up inspection will be conducted within 72 hours. The inspection should be conducted upstream of the outfall to determine the pollution source. Municipal staff will take all necessary measures to identify and eliminate obvious pollution sources.
- Wet weather sampling should be conducted during a rain event that is greater than 0.1 inch of total rainfall and at least 72 hours from the previously measurable rain event.
- Storm water sampling should be conducted within 30 minutes of the start of flow from the outfall in order to collect pollutants present in the “first flush” of storm water.
- Data will be processed and kept on file at the Stormwater Department. This information will be compiled at least once a year and presented in an annual report.
- Photographs should be taken to assist in documentation of the inspections.

### **Measured Depth**

By measuring the approximate depth of a storm water discharge, the amount of flow can be easily documented and compared from one monitoring event to the next. A higher depth corresponds to a higher flow and a lower depth corresponds to a lower flow. In order for this

method to be effective, the location at which the depth measurement is taken must remain consistent across monitoring events. The measured depth should be recorded on the Visual Inspection and Storm Water Sampling Form (Inspection Form).

### **Visual Inspections**

Monitoring performed by trained municipal employees will include the following list of visual observations to be evaluated and recorded on the Inspection Form during each outfall monitoring event. Photographs should be taken to assist in documenting the inspections.

- **Odor:** Discharge odors can vary widely. Some may indicate the source of contamination. Industrial discharges may smell like a particular spoiled product, oil, gasoline, a specific chemical, or a solvent. For example, the decomposition of organic wastes in a discharge will release sulfide compounds, creating an intense smell of rotten eggs. Significant sanitary wastewater contributions will also cause pronounced and distinctive odors.
- **Foam:** Many natural organic compounds will reduce surface tension, including those from decomposing algae and fish. Organic residues from decaying leaves and vegetation also contain substances that help generate foam. However, foam in a storm water outfall could indicate the presence of detergent or cleaners from illicit residential, commercial or industrial discharges. Atypical odors or coloration may assist in making this determination.
- **Oil Sheen:** An oil sheen is a thin layer of oil floating on a water surface. Depending on thickness, sheens range in color from dull brown for the thickest sheens to rainbow, grays, silver, and near-transparency. The presence of oil sheens in storm water discharges could indicate contamination from several possible sources: leaks or spills of automobile fluid, oil, gasoline, animal fats or even runoff from streets or parking lots.
- **Color:** Color may indicate inappropriate discharges, especially from industrial sources. Industrial discharges may be any color. Dark colors, such as brown, gray, or black, are most common. For instance, flow contaminated by meat processing industries is usually a deep reddish-brown. Paper mill wastes (plating-mill wastes) are often yellow. Wash water from cement and stone working plants can cause cloudy discharges. Contamination from industrial areas may come from process waters (in the form of slug or continuous discharges); from equipment and work area wash water discharged to floor drains; or from spills washed into storm drains. The presence of a dirty-grey mat or if the water appears to be dark grey in color, this indicates that the bacteria *Sphaerotilus natans* (“sewage fungus”) is present. Sewage fungus appears along the bottom of storm sewer conveyances when sewage or other fecal matter is present.
- **Turbidity:** Turbidity refers to how clear the water is. The greater the amount of solids in the water (silt, organics and other suspended solids), the murkier it appears. Turbidity is often affected by the degree of gross contamination. Industrial flows can be cloudy (moderately turbid) or opaque (highly turbid). Undiluted industrial discharges, such as those coming from continual flow sources or intermittent spills, are often highly turbid. Sanitary wastewater is also often cloudy in nature.
- **Floatables:** Floatables are any solids, which are unnaturally introduced into the storm drain system. Floatables that cause degradation in water quality include trash or rubbish such as soda bottles, styrofoam cups, plastic bags, paper, packaging and other man-made products. Storm water will contain natural floating materials such as leaves, twigs or other natural

debris. Unnatural floatables can contribute significant amounts of heavy metals, pesticides, and bacteria into receiving streams.

- **Deposits/Stains:** Deposits and stains are any type of coating that remains on the outfall pipe surface. Deposits or stains usually are of a dark color and tend to cover the area surrounding the storm water discharge. They could contain fragments of floatable substances or take the form of a crystalline or amorphous powder. The source of deposits and stains could be difficult to track. Additional investigation may be necessary to track potential pollutant sources.
- **Vegetation:** Storm water discharges often affect surrounding vegetation. Industrial pollutants can cause a substantial alteration in the chemical composition and pH of the discharge water, which can affect plant growth even when the source of contamination is intermittent. For example, nutrients from various food product wastes increase plant growth. In contrast, the discharge of chemical dyes and inorganic pigments from textile mills may decrease vegetation, as these discharges are often very acidic. In either case, even when the pollution source is removed, the vegetation surrounding the discharge point will continue to show adverse effects.
- **Outfall Condition:** If during the visual inspection, the outfall structure is found to be deteriorated, or if the area surrounding the outfall pipe has become eroded, the structure must be repaired. Refer to Section 4.6 Best Management Practice for Outfall Scouring Repair.

### Physical Monitoring

The following table describes the constituents to be analyzed through physical monitoring:

Sampling Parameter	Grab Sample
Temperature	1 per year per monitoring location*
pH	1 per year per monitoring location*
Ammonia	1 per year per monitoring location*

\* physical monitoring should be conducted from each monitoring location, once in the spring (April or May)

Following is a description of monitoring procedures and methods for analyzing parameters in the field. Quality assurance procedures currently used at the WWTP will be implemented when samples are processed in the lab.

#### Temperature

Field measurements of temperature should include both air-temperature and water-temperature readings. Air-temperature readings should be made by placing a dry thermistor or thermometer in a shaded area protected from strong winds, but open to adequate air circulation. Avoid areas that may have radiant heat such as near metal walls or sides of vehicles. Allow the thermometer to equilibrate 3 to 5 minutes before recording the temperature.

Water temperatures should represent the mean temperature of the discharge at the time of observation. Make the temperature measurement by suspending (from a weighted line) or placing a thermometer in midstream. Shade the probe to prevent erroneous readings caused by direct solar radiation. The thermometer should be immersed in the flow stream for a minimum of

1 minute prior to making measurements. Report temperature measurements to the nearest 0.5 degrees.

### pH

Measurements of pH at outfall locations should be made directly in the storm water stream or a grab sample may be taken and analyzed in the lab. Several readings or grab samples may be necessary (vertically and horizontally) in the cross section to determine a mean value.

- Buffers should be used to calibrate pH meters. The standard buffer solutions have values of pH 4, 7, and 10 with a relatively high ionic strength. Two pH buffers are needed to calibrate the pH meter (4 and 7 or 7 and 10). Document calibration checks.
- Rinse electrode, thermistor, stirring bar, and container with stream water. Pour stream water into container holding the electrode, thermistor, and stirring bar. Allow the temperature to equilibrate and the electrode to precondition itself to the sample. Discard sample in waste container.
- Measurement: Pour fresh sample into the same container holding the equipment. Measure and set temperature and remove thermistor. Measure pH and record on field notes. Discard sample in waste container.
- Rinse electrode, thermistor, and stirring bar with distilled water, and store electrode as recommended by the manufacturer.
- Measurements of pH are reported in pH units. Results are reported to the nearest 0.1 pH unit.

### Ammonia

Nitrogen is a fundamental plant nutrient and required by all living plants and animals for building protein. In aquatic ecosystems, nitrogen is present in different forms: nitrate, nitrite, ammonia, and organic nitrogen. All these forms of nitrogen are components of the nitrogen cycle. Sources of ammonia nitrogen to storm drain systems could be illegal connections to the sanitary sewer system, poorly functioning septic systems, or wildlife (particularly large concentrations of ducks and geese).

Ammonia nitrogen is toxic to freshwater aquatic organisms in a range that varies from 0.2 to 4.8 ppm depending on pH and temperature of the water. In unpolluted water, ammonia nitrogen is generally found at levels less than 1.0 ppm.

Ammonia testing strips may be used for monitoring. Follow the manufacturer's instructions for proper testing procedures.

### Grab Sampling

When taking a grab sample, it should be taken within the first 30 minutes of storm water discharge. To ensure that grab samples collected by workers on-site are representative of the storm water, follow these procedures:

- Have your sampling equipment and bottles ready ahead of time;
- Take a small cooler with ice to the sampling point;
- Label the sample container with water resistant ink (e.g. "Sharpie" pen);
- Collect the grab sample from the horizontal and vertical center of the flow;

- Avoid stirring up the bottom sediments in the channel of bottom of the outfall pipe. Hold the container so the opening faces upstream;
- To prevent contamination, avoid touching the inside of the container with your hands or equipment;
- Keep the sample free from uncharacteristic floating debris;
- Transfer the sample into the proper container;
- Pack the cooler with ice and pack the sample bottles in plastic, cardboard, or newspaper.

### **Chapter 3 – Privately Owned Structural Storm Water BMPs**

Private landowners and businesses in Greenfield have implemented many structural storm water best management practices (BMPs) throughout the MS4 area for the purpose of improving water quality for the community. Structural BMPs may include the following:

- Wet Detention Ponds
- Storm Water Infiltration Areas
- Constructed Wetlands
- Bioretention Areas
- Underground Storage Basins
- Hydrodynamic Separators

According to the City’s Storm Water Management Ordinance, long-term maintenance of storm water quality BMPs is the responsibility of the owner of the BMP. The City has authority to inspect the BMPs to ensure that each is properly maintained and is functioning as intended (to improve storm water quality).

As part of the SWQMP, the City of Greenfield will confirm the maintenance and effectiveness of all privately owned BMPs. The following form may be used to conduct BMP inspections.



## Chapter 4 – Best Management Practices

### 4.1 Public Education and Outreach

The purpose of the public education and outreach program is to inform citizens within the MS4 area about the impacts pollution can have on water quality and provide information on how they can prevent storm water pollution. The City of Greenfield will implement BMPs to inform all constituent groups (residents, visitors, public service employees, commercial and industrial facilities, and construction site personnel) within the MS4 area. The MS4 operator shall document all efforts to reach constituents with educational information and retain copies of all educational literature. In addition, a storm water public awareness survey distributed at the beginning and at the end of the permit term will track the improvement in public knowledge resulting from the public education and outreach efforts.

An initial assessment, in the form of a public awareness survey, was conducted in 2004. The survey did not have a good turn out and only a few surveys were returned.

A survey was completed in 2010. The results of the completed surveys will be used to target educational efforts in Greenfield.

The public awareness surveys were scored according to the population's storm water knowledge and personal habits affecting storm water.

#### 2010 Survey Results

The City of Greenfield designed an informal survey as part of the City's Municipal Separate Storm Sewer System (MS4) program. The survey was designed to measure the basic knowledge of citizens concerning storm water pollution. The purpose of the survey was to set a public education baseline for the MS4 program's Public Education and Public Participation minimum control measures.

The survey was conducted via a direct mailing to utility rate customers. A total of 9,700 survey forms were mailed out with the May 2010 Greenfield Utility bills. These bills were mailed in three different batches. Forty-three (43) customers returned the surveys partially or completely filled out. One (1) submitted a note with the incomplete survey complaining about the storm water utility bill.

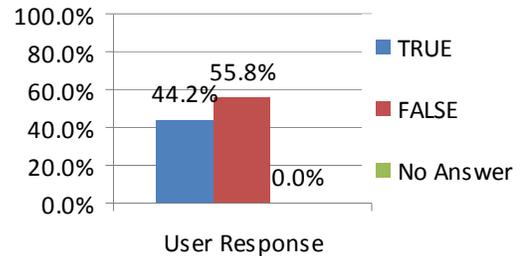
The survey results provided on the following pages is a compilation of the forty-three (43) completed surveys. The results are reported by question.

Using a confidence level of 95% with the 43 respondents, the calculated confidence interval is +/-15 (+/- 34%).

### Question 1

Question 1 was asked to gauge rate payers knowledge on how storm water is handled within the City. The responses to Question 1 show a mixed knowledge of storm water among the respondents. Statistically, there was no difference in the number of respondents that believe that storm water is treated before it enters local streams and the number of those who believe that storm water isn't treated.

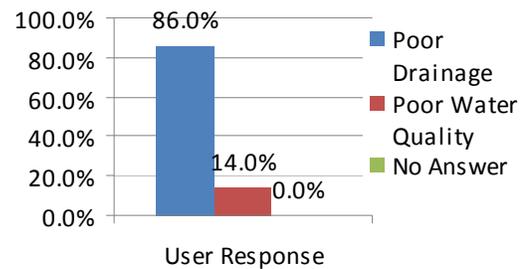
Question 1: Stormwater is treated before it enters our local streams.



### Question 2

Question 2 was asked in order to gauge rate payer's attitudes towards storm water in relation to the quality or quantity. Respondents overwhelmingly responded that storm water quantity is a bigger concern to them than storm water quality.

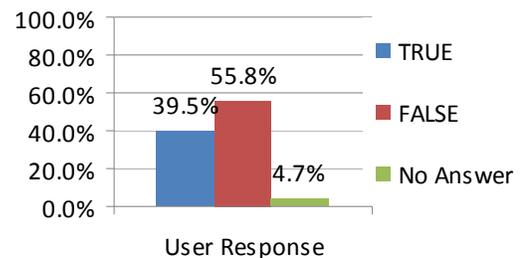
Question 2: Which is the biggest stormwater problem facing the City of Greenfield?



### Question 3

Question 3 was asked to determine if rate payer's believe that the water quality in area streams is improving. Statistically, there was no difference in the number of respondents that believed that water quality was getting better and those that don't.

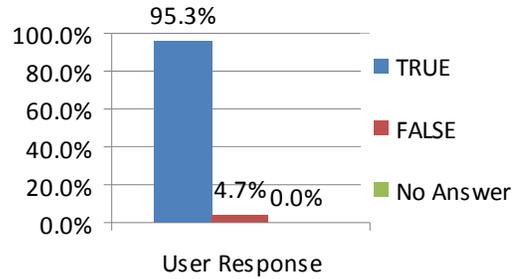
Question 1: Do you feel the water quality in area streams is getting better?



#### Question 4

Question 4 was asked in order to gauge rate payer's knowledge regarding the impacts that can be caused to water quality by using lawn chemicals. Respondents overwhelmingly responded that storm water quantity can be affected by lawn chemicals.

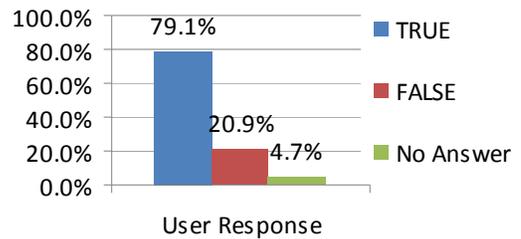
Question 4: Chemicals such as lawn fertilizers and weed killers affect stormwater quality



#### Question 5

Question 5 was asked to determine rate payer's knowledge regarding the impacts of lawn waste. Respondents overwhelmingly responded that lawn waste is considered a pollutant to area streams

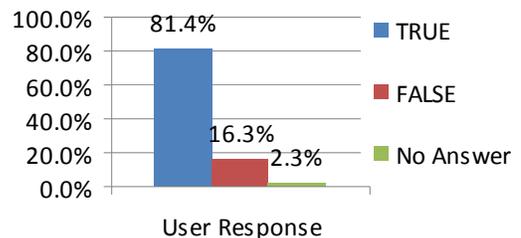
Question 5: Lawn waste, such as grass clippings and leaves, is considered a pollutant to area streams



#### Question 6

Question 6 was asked to determine rate payer's knowledge regarding the impacts of washing vehicles on hard surfaces to water quality. Respondents overwhelmingly responded that washing vehicles on hard surfaces could affect water quality.

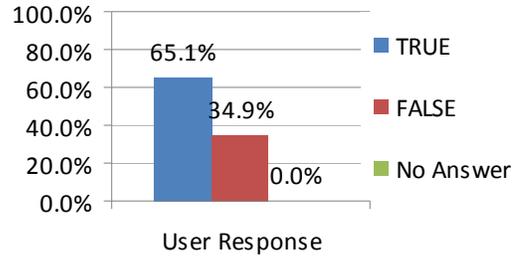
Question 6: Washing vehicles on driveways can impact water quality?



### Question 7

Question 7 was asked to determine if rate payer's know what a storm drain is. Statistically, there was no difference in the number of respondents that knew what a storm drain is and those that did not.

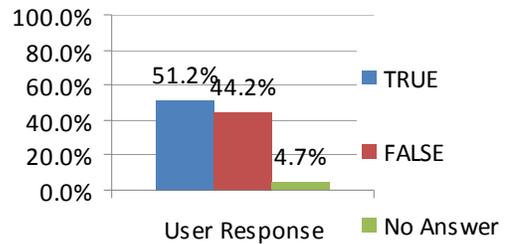
Question 7: Do you know what a storm drain is?



### Question 8

Question 8 was asked to determine if rate payer's and seen the storm drain markers placed on inlets and catch basins and to see if the marking program had an effect of marking. Statistically, there was no difference in the number of respondents that had seen the markers and those that hadn't.

Question 8: Have you seen the "Dump No Waste" storm drain markers placed on area storm drains?



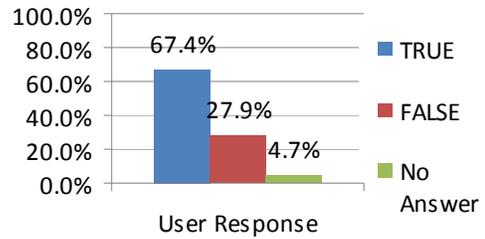
### Question 9

Question 9 was ask to determine if the marking of the inlets and catch basins had an effect on the attitudes of rate payers considering what is dumped down the drains. There was a slight difference in the number of respondents that indicated that the markers had caused them to consider what was dumped down the storm drain.

Interestingly, 7 (16.3%) of respondents indicated that the markers had caused them to consider what was dumped down the storm drain even though they had not seen them.

Question 9 had a flaw in that it was not formatted correctly at publication to be a sub question on question 8.

Question 9: Did these markers cause you to consider what is dumped down the storm drains?



Specific information on the Public Participation and Outreach BMPs are included in the following BMP detail sheets.

## Distribution of Rain Garden Educational Information

### ***BMP Description***

Directly south of the Greenfield City Hall, the MS4 has installed a rain garden. This site is used as a demonstration site and for storm water quality education. Rain garden educational information will be distributed at the City Hall and will be kept in the distribution box next to the rain garden.

The rain garden will be maintained by the City on a regular schedule.

### ***Measurable Goals***

The goal of the rain garden is to improve storm water quality, reduce the instances of flooding and provide a demonstration site for public education.

The MS4 will attempt to increase the number of individuals educated on rain gardens as a storm water quality BMP.

Document the number of rain garden materials distributed.

### ***Responsible Entity***

The City of Greenfield, Storm Water Department

### ***Schedule***

Rain garden brochures or other educational information will be restocked as needed.

### ***Reporting and Recordkeeping***

The MS4 Operator will record the number of rain garden materials distributed for annual reporting.

<p><b><i>Minimum Control Measures:</i></b></p> <p><input checked="" type="checkbox"/> Public Education  <input type="checkbox"/> Public Involvement  <input type="checkbox"/> Illicit Discharge  <input type="checkbox"/> Construction Site Control  <input type="checkbox"/> Post Construction Control  <input type="checkbox"/> Municipal Operations</p>	<p><b><i>Target Constituents:</i></b></p> <p><input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input type="checkbox"/> Commercial Facilities  <input type="checkbox"/> Industrial Facilities  <input type="checkbox"/> Construction Site Personnel  <input checked="" type="checkbox"/> Visitors</p>	<p><input type="checkbox"/> <b><i>New Program</i></b>   <input checked="" type="checkbox"/> <b><i>Current Program</i></b></p>
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## Distribution of Storm Water Educational Information for Visitors

### ***BMP Description***

In an attempt to reach visitors, the City of Greenfield will distribute educational information on storm water pollution prevention, storm water quality, and other related topics at the public library and hospital.

### ***Measurable Goals***

The MS4 will attempt to increase the number of visitors educated on storm water quality and pollution prevention practices.

Document the number of storm water materials distributed at the library and hospital.

### ***Responsible Entity***

The City of Greenfield, Storm Water Department

### ***Schedule***

Storm water information will be made available at the public library and hospital every year. Information will be restocked as necessary.

### ***Reporting and Recordkeeping***

The MS4 Operator will record the number of storm water materials distributed annually at the library and the hospital for annual reporting.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Education Outreach for Commercial and Industrial Facilities

### ***BMP Description***

Commercial and industrial facilities will be sent educational materials on the proper disposal of hazardous waste and proper spill clean-up procedures. This program has already been implemented as part of Greenfield's Wellhead Protection Plan. Several commercial and industrial facilities have been notified of hazardous waste and spill clean up procedures. The City of Greenfield will incorporate more information related to storm water pollution prevention and continue to target businesses that are potential contaminant sources.

### ***Measurable Goals***

The goal is to educate all commercial and industrial facilities that store hazardous chemicals and to educate these entities on watershed protection concerns.

Document the number of businesses notified.

### ***Responsible Entity***

Greenfield Water and Sewer Maintenance Department in cooperation with the Wellhead Protection Local Planning Team.

### ***Schedule***

The list of businesses will be updated annually in cooperation with the Wellhead Protection Local Planning Team meetings.

Educational information will be sent to new businesses at least once during the permit term (5 years).

### ***Reporting and Recordkeeping***

The City of Greenfield will keep record of all correspondence with industrial and commercial facilities related to storm water issues. Information will be reported in the annual report.

Record the total number of notifications for commercial and industrial facilities.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## SWCD Educational Efforts

### ***BMP Description***

The Hancock County Soil and Water Conservation District (SWCD) provides a wide range of environmental educational efforts, including: curricula for the 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> grade, outdoor classroom designs, soil and water stewardship week, display of storm water booths, educational and urban workshops, adult education, ECO Time Column, Ag Day activities, Conservation on the Land newsletter, Sugar Creek/Brandywine Watershed newsletters, and many other activities.

The MS4 will help to promote and support SWCD activities and assist with distributing educational information.

### ***Measurable Goals***

The goal is to increase the amount of storm water quality educational information through a variety of programs and printed media.

One storm water educational activity will be conducted per year.

One newspaper article and one newsletter article will be published per year.

### ***Responsible Entity***

Hancock County SWCD in cooperation with the Greenfield MS4

The MS4 Operator will keep record of the SWCD's activities and publications regarding educational efforts.

### ***Schedule***

One storm water educational activity annually.

One newspaper article annually.

One newsletter annually.

### ***Reporting and Recordkeeping***

Record the number of storm water activities that the SWCD conducts each year and the number of articles published. Describe educational activities and record the title and content of newspaper/newsletter articles. Typically, the SWCD generates an annual report that summarizes their annual educational activities.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Website Education

### ***BMP Description***

There are several storm water websites that will reach various constituent groups in Hancock County. The City of Greenfield Storm Water Department web page, Hancock County storm water webpage, and the SWCD website will be modified to provide storm water educational information. These websites will contain information about the MS4 program, educational information, storm water ordinances and development standards and will be used to promote storm water workshops and events.

### ***Measurable Goals***

The goal of this BMP is to increase the number of constituents reached through the use of local websites.

This will be tracked by the number of hits to the websites.

### ***Responsible Entity***

Each entity is responsible for the content of their individual website.

City of Greenfield, Storm Water Department will be responsible for record keeping for the annual report.

### ***Schedule***

Review and update storm water websites at least once a year. Include new and pertinent information as necessary.

### ***Reporting and Recordkeeping***

Document the number of hits to each website. Describe the website content that is pertinent to storm water quality education. Information will be reported in the annual report.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Hancock County Memorandum of Agreement (MOA)

***BMP Description***

In 2010, the City of Greenfield signed a Memorandum of Agreement (MOA) with other MS4s in the County to cooperate on public education efforts throughout the County. The MS4s, the County SWCD, and County SWMD will coordinate public information/awareness sessions targeted at Hancock County MS4 areas regarding storm water quality issues; coordinate information exchange for the development of annual reports; and conduct public education and outreach activities to various constituent groups throughout the County.

***Measurable Goals***

The goal of this MOA is to share the cost and efforts associated with storm water educational efforts and to help to support and promote existing educational outreach conducted throughout Hancock County.

A goal is to meet at least once a year to discuss ongoing public education efforts/activities and to compile annual reporting information.

***Responsible Entity***

All MS4s and county officials participate in scheduled meetings.

***Schedule***

Meetings will be scheduled regularly.

***Reporting and Recordkeeping***

Record the number of meetings. Sign-in sheets and meeting minutes will be kept on file by the Hancock County MS4s. Information will be recorded in the annual report.

***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Education for Construction Professionals

### ***BMP Description***

In an effort to educate construction site personnel, the City of Greenfield will distribute storm water pollution prevention and erosion control information/brochures when building permits are applied for or when they are issued. The information may include erosion control BMPs, Rule 5 regulations or spill prevention and spill response planning.

Incorporate educational information into the information that is given with building permits or building permit application packets.

### ***Measurable Goals***

The goal of this BMP will be to educate all contractors, developers or property owners who are planning a construction project.

Record the number of individuals educated by recording the number of building permits.

### ***Responsible Entity***

City of Greenfield, Building Department

### ***Schedule***

Educational information/brochures will be distributed when developers apply for a building permit.

### ***Reporting and Recordkeeping***

The City of Greenfield will record the number of erosion control educational brochures distributed to developers that applied for a building permit.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Storm Water Inlets for New Development

***BMP Description***

For new development, the City will require, through its Drainage Standards Manual, storm inlet castings and curb inlets be stamped with a pollution prevention message such as, “No Dumping, Drains to Stream”.

This requirement was incorporated into the City’s Storm Water Management Ordinance (Adopted in October 2006).

***Measurable Goals***

The goal of this BMP is to increase the number of storm drains that are marked with a pollution prevention message.

Record the number of new inlets that have been installed with a pollution prevention message.

***Responsible Entity***

City of Greenfield, Storm Water Department

***Schedule***

On-going

***Reporting and Recordkeeping***

The number and location of new storm sewer inlets containing the pre-stamped message will be recorded and reported in the annual report.

***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## **4.2 Public Participation and Involvement**

The purpose of the public participation and involvement program is to allow members of the community to provide input into the SWQMP, improve community storm water practices, and take part in storm water quality improvement projects. The City of Greenfield's public participation and involvement program will implement a community storm water pollution prevention program that will invite participation from all constituent groups. This program will center on pollution prevention and reporting, public meetings, volunteer activities, and interactive educational programs.

Specific information on the Public Participation and Involvement BMPs are included in the following BMP detail sheets.

## Storm Water Public Awareness Survey

### ***BMP Description***

The City of Greenfield distributed two surveys in the first permit term to measure comparison between the surveys. Through the County MOA, the MS4s would like to develop a county-wide survey to be distributed to all residents in the County. Follow up surveys will be distributed every 5 years. Survey results will be compiled and summarized in annual reports.

The survey must include a way to measure storm water quality awareness and the results must be able to be sorted by target constituents (residents, public service employees, commercial facilities, industrial facilities, construction site personnel, visitors).

### ***Measurable Goals***

The goal is to conduct a county-wide survey once in every permit term, collect and interpret the information and to use the results to redefine educational efforts.

The county MS4s will evaluate alternative survey distribution methods in order to increase the number of responses.

### ***Responsible Entity***

All MS4s, SWCD, and SWMD

### ***Schedule***

A county-wide survey will be distributed by the end of 2010. The survey will be distributed again in 2013 as a follow up measure for comparison.

A follow up survey will be conducted once every permit term.

### ***Reporting and Recordkeeping***

The County will compile the results of the survey. The results of the surveys will be compared and included in annual reports. Retain a copy of the survey.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Annual SWCD and SWMD Meeting

### ***BMP Description***

The SWCD and SWMD meet annually to report all educational activities conducted throughout the year. These meetings are advertised and open to the public.

### ***Measurable Goals***

The goal of the BMP is to increase the number of individuals participating in the SWCD and SWMD meetings.

Report the number of people attending the meeting every year.

### ***Responsible Entity***

The County SWCD and SWMD will organize and conduct the meetings.

### ***Schedule***

Meetings will be held annually.

### ***Reporting and Recordkeeping***

The City of Greenfield will contact the County SWCD or SWMD to report the number of people attending annual meetings. This information will be recorded and reported in annual reports.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Board of Public Works Meetings

***BMP Description***

The City of Greenfield holds Board of Public Works meetings at least annually or as needed. At least once per year, a discussion on storm water quality issues will be added to the agenda at one of the meetings.

These meetings are open to the public to discuss drainage issues, storm water quality or quantity issues, or other complaints that the public may have in the City.

***Measurable Goals***

The goal of this BMP will be to increase public involvement and provide an opportunity for the community to be involved with storm water drainage planning and to express concerns. The number of individuals attending the Board meetings will be recorded to measure this goal.

***Responsible Entity***

The City of Greenfield in cooperation with the City’s Board of Public Works will organize and conduct meetings.

***Schedule***

The Board of Public Works meetings will be held as needed and at least once a year.

***Reporting and Recordkeeping***

Sign-in sheets, meeting agendas, and public advertisements will be kept on file by the MS4 Operator. Information will be reported in the annual report. Record the number of individuals attending the Board of Public Works meeting.

<p><b><i>Minimum Control Measures:</i></b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Public Education</li> <li><input checked="" type="checkbox"/> Public Involvement</li> <li><input type="checkbox"/> Illicit Discharge</li> <li><input type="checkbox"/> Construction Site Control</li> <li><input type="checkbox"/> Post Construction Control</li> <li><input type="checkbox"/> Municipal Operations</li> </ul>	<p><b><i>Target Constituents:</i></b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Residents</li> <li><input checked="" type="checkbox"/> Public Service Employees</li> <li><input checked="" type="checkbox"/> Commercial Facilities</li> <li><input checked="" type="checkbox"/> Industrial Facilities</li> <li><input checked="" type="checkbox"/> Construction Site Personnel</li> <li><input checked="" type="checkbox"/> Visitors</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b><i>New Program</i></b></li> <li><input checked="" type="checkbox"/> <b><i>Current Program</i></b></li> </ul>
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## Community Clean-Up/County SWCD Clean-Up Events

### ***BMP Description***

A City clean-up day typically in conjunction with the SWMD is coordinated and advertised annually. The Clean-up day is advertised through flyers posted at the City Hall, on the City storm water webpage, and on the County SWMD website. All constituent groups will have the opportunity to participate in community clean-up events.

Also, annually Greenfield residents and businesses will have the opportunity to participate in county-wide clean up events organized by the Hancock County SWCD.

### ***Measurable Goals***

This BMP is a preventative measure that reduces the amount of litter and other debris in storm water conveyances and receiving streams. This goal will be measured by the number of participants and the total amount of litter/debris collected.

Community clean-up events will be advertised and held at least annually.

### ***Responsible Entity***

City of Greenfield, County SWCD and SWMD

### ***Schedule***

On-going at least annually

### ***Reporting and Recordkeeping***

The City of Greenfield will record the number of volunteers and the amount of trash collected if available from these clean-up events. This information will be recorded in annual reports.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Steering Committee Advisory Group - Brandywine Watershed Project

### ***BMP Description***

The County received a Lake and River Enhancement Program (LARE) grant to conduct watershed management planning for the Brandywine Creek Watershed. The SWCD will organize monthly meetings to establish the Brandywine Creek Watershed Plan including Brandywine Creek and its tributaries by forming a Steering Committee Advisory Group. The Advisory Group would consist of people that would be of interest in or could be affected by the watershed planning activities. The watershed management planning process will provide opportunities to address water quality and habitat issues beyond the scope of single jurisdictions. It could also ensure environmental protection, to support quality of life issues, and accommodate economic development using the watershed as the planning framework.

### ***Measurable Goals***

The goal of this BMP is to involve the public, educate the public and to focus on water quality within a specific watershed. This goal will be measured by the number of meetings, the number of participants and the topics discussed/activities completed by this watershed group.

### ***Responsible Entity***

The Hancock County SWCD

### ***Schedule***

Meetings will be held at least monthly.

### ***Reporting and Recordkeeping***

The MS4 Operator will contact the Hancock County SWCD to record the number of meetings, the number of participants and a listing of meeting topics. This information will be reported in the annual report.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

### 4.3 Illicit Discharge Detection and Elimination

An illicit discharge is any substance other than storm water, or those discharges listed in 327 IAC 15-13-14 (d), that enters the MS4's drainage system. Illicit discharges include dumping, non-point source pollution, and non-storm water connections to the storm drainage system. The City of Greenfield has established measurable goals and schedules for implementation of the storm system mapping program and illicit discharge detection and elimination program.

For the purposes of the SWQMP, the City limits of Greenfield (refer to attached map) will also serve as the MS4 area. The City of Greenfield is located in Hancock County. The following is a narrative description of Greenfield's City limits:

The City of Greenfield's City limits has irregular boundaries and is bounded in general by E. 300 N. to the north, N. 400 E. to the east, just south of E. 200 S. to the south, and N. 150 W. to the west.

The MS4 has approximately 450,000 linear feet of storm sewer and 40,057 linear feet of open ditch. The City of Greenfield will map ditches and identify the latitude and longitude of all outfalls greater than 12 inches in diameter as they are identified. All known outfall conveyances with a pipe diameter of 12 inches or larger and all open ditches with a 2 foot or larger bottom width have been mapped. The following outfalls have been located by latitude and longitude.

Outfall Name	Latitude	Longitude
wd-101	39.76143350480	-85.76454508840
wd-103	39.75979692390	-85.76134394120
WD-102	39.76131841080	-85.76448865930
WD-104	39.76342276040	-85.76774152560
WD-105	39.76390642190	-85.76825483360
WD-106	39.76527316200	-85.77024748980
WD-107	39.76505993990	-85.77237168680
wd-108	39.76489217840	-85.77314783190
pd-102	39.81344786850	-85.78065479150
pd-101	39.81372942670	-85.78057611600
pd-103	39.81318298810	-85.78067680360
pd-104	39.81316407230	-85.78068400710
pd-105	39.81231331370	-85.78082446170
pd-106	39.81205571420	-85.78084178230
pd-107	39.81041714140	-85.78031923100
pd-108	39.81010366960	-85.78028482340
pd-109	39.80873903670	-85.78055509600
pd-110	39.80709787010	-85.78051346890
pd-111	39.80679864340	-85.78052551340
pd-112	39.80654324990	-85.78045472110
pd-113	39.80643277820	-85.78050121480
pd-114	39.80597785560	-85.78035192700
pd-115	39.80520439950	-85.78030688520

pd-116	39.80448533550	-85.78033983920
pd-117	39.80433289110	-85.78037632660
pd-118	39.80397182770	-85.78044852620
pd-119	39.80307623880	-85.78056641300
pd-120	39.80227156310	-85.78077135190
pd-133	39.79284777040	-85.77641350400
pd-132	39.79283479710	-85.77657978500
pd-130	39.79304179700	-85.77686784210
pd-131	39.79297335250	-85.77675715650
pd-125	39.79824515210	-85.78144121780
pd-124	39.79941170700	-85.78066144290
pd-123	39.79966213550	-85.78062666100
pd-122	39.80109482760	-85.78088706780
pd-121	39.80137804710	-85.78084298540
pd-126	39.79569605260	-85.78148228580
pd-129	39.79447828130	-85.77957445720
pd-128	39.79452131730	-85.77954688110
pd-127	39.79457553860	-85.77955022930
pd-134	39.79222994450	-85.77521820220
pd-135	39.79203195010	-85.77502616010
pd-136	39.81400030550	-85.78061986300
pd-137	39.81399279780	-85.78059085010
pd-138	39.81576422710	-85.78063640120
pd-139	39.81615878090	-85.77998848020
pd-140	39.81624502340	-85.77982007410
pd-141	39.79135737610	-85.77416520730
pd-142	39.79131471960	-85.77401635500
pd-143	39.79004953420	-85.77218016190
pd-144	39.78909063990	-85.77022970720
pd-145	39.78900684930	-85.77022783030
pd-146	39.78894966530	-85.77023487150
pd-147	39.78804078340	-85.77028433250
pd-148	39.78796040310	-85.77027445180
lbc-103	39.79411889870	-85.73660120030
lbc-104	39.79259603890	-85.73878049490
lbc-102	39.79420491580	-85.73649631700
lbc-105	39.79094490820	-85.73983696790
lbc-106	39.79057996320	-85.74083024590
lbc-107	39.78891515840	-85.74132892170
bd-101	39.80186666290	-85.75286373110
bd-102	39.80184664600	-85.75295157250
bd-103	39.80133839350	-85.75292755370
bd-104	39.80121874320	-85.75287981020
bd-105	39.80089251600	-85.75284073790
bd-106	39.80089082430	-85.75290630760

bd-107	39.80024250850	-85.75282798330
bd-108	39.80023760490	-85.75288301960
bd-109	39.79994763650	-85.75287750540
bd-110	39.79991799490	-85.75282972940
bd-111	39.79992827900	-85.75287575390
bd-112	39.79958440620	-85.75289672540
bd-113	39.79889294540	-85.75284726130
bd-114	39.79737555100	-85.75313995030
bd-115	39.79709031770	-85.75334474890
bd-116	39.79410119580	-85.75885959760
lbc-108	39.78985684360	-85.74023803760
bc-101	39.80624122380	-85.76356993200
bc-102	39.80598555220	-85.76358081390
bc-104	39.80348292560	-85.76348971770
bc-105	39.80046331560	-85.76414319120
Bc-106	39.79943718840	-85.76305212760
bc-107	39.79800548470	-85.76289927490
bc-108	39.79730488310	-85.76186188600
bc-109	39.79655224770	-85.76201371770
bc-110	39.79597432750	-85.76193151430
bc-111	39.79569451150	-85.76094005960
bc-112	39.79545096130	-85.76055779820
bc-113	39.79508422620	-85.76030888940
bc-114	39.79465356020	-85.75995140180
bc-115	39.79233618390	-85.76028873720
bc-116	39.79126077170	-85.75984097510
bc-117	39.78973446390	-85.75856945870
bc-118	39.78855755550	-85.75789333210
bc-119	39.78853169280	-85.75783625960
bc-120	39.78848537020	-85.75748828420
bc-121	39.78822692180	-85.75734280400
bc-122	39.78845703030	-85.75802914140
bc-123	39.78806383310	-85.75762109420
bc-124	39.78720680150	-85.75724016740
bc-125	39.78684301290	-85.75785455240
bc-126	39.78668145540	-85.75777014880
bc-127	39.77595788570	-85.76010172920
bc-128	39.77449791950	-85.75979477150
bc-129	39.76629902580	-85.75352751970
LD-101	39.78322237400	-85.81483259740

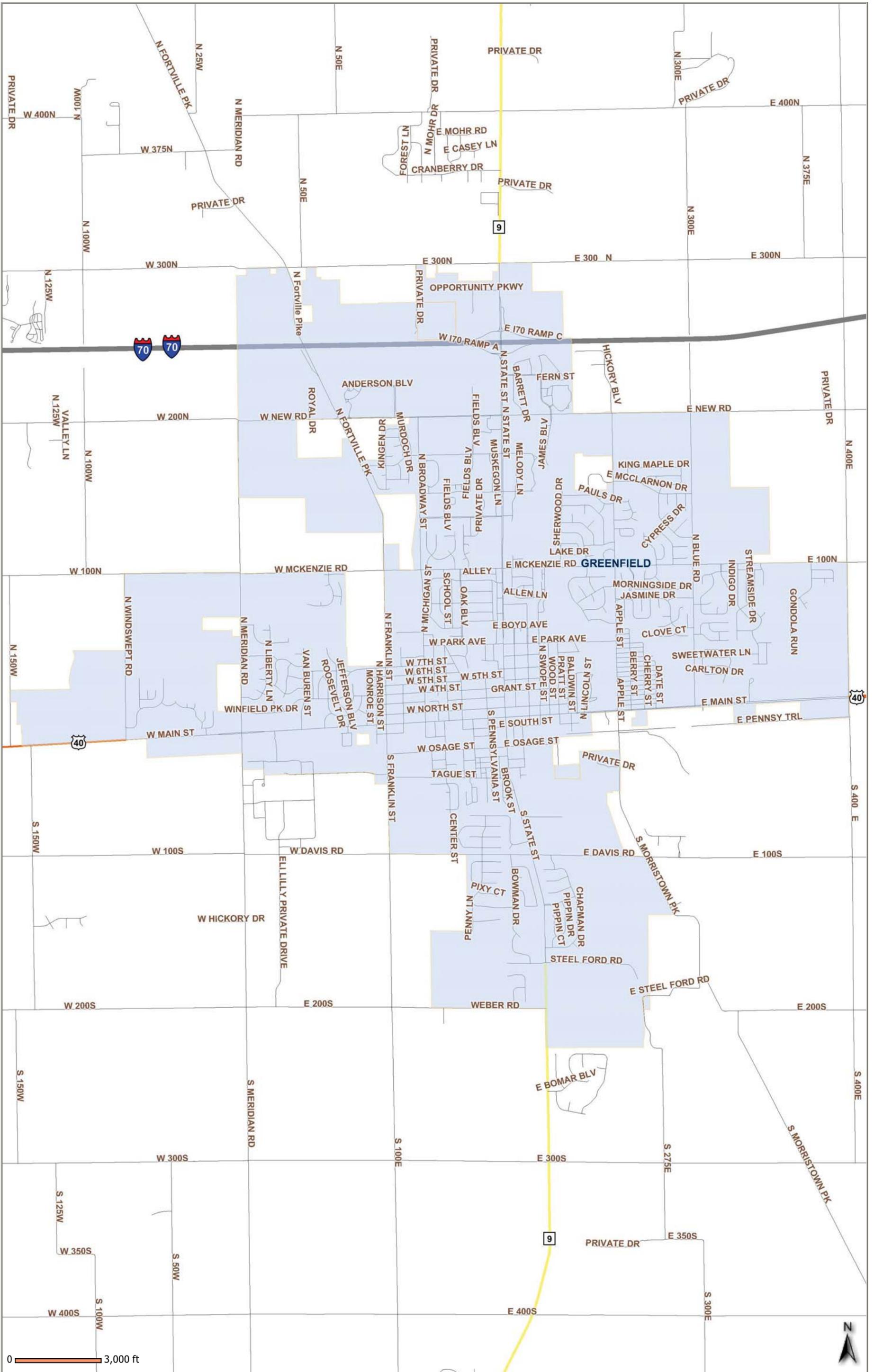
As a proactive approach, the City of Greenfield is currently implementing measures to detect and eliminate illicit discharges throughout the City. In conjunction with the public outreach and education MCM, Greenfield has established BMPs to educate all constituent groups on the

dangers of illicit discharges, proper disposal of commonly dumped wastes, and the reporting of illicit discharges.

The following is a list of the known industrial facilities with a Standard Industrial Classification (SIC) code in Greenfield’s City limits.

<b>Name</b>	<b>Facility Address</b>	<b>SIC Code</b>
Keihin IPT Manufacturing, Inc.	400 West New Road	3714
Eaton Corporation	501 W. New Road	3714
Avery Dennison Fasson Roll	870 West Anderson Blvd.	2672
Roll Coater, Inc.	1950 East Main Street	3479
Indiana Automotive Fasteners	1300 West Anderson Blvd.	3452
Job Shop Coatings, Inc.	18 East Pierson Street	3479
Greenfield Laboratories (Covance Laboratories)	2001 West Main Street	2834
Republic Services (Greenfield) TS & Hauling	266 South Franklin Street	4212
Shelby Petroleum, Inc	325 E Main Street	517213
Sam's Club DC #8232	488 West Muskegon Road	4225
Indiana Box Factory	2200 Royal Drive	265301
Indiana KnitWear	230 East Osage Street	232101
Hanger Bolt and Stud	165 West New Road	
Blue Arc Engineering	2155 Fields Blvd	
Novelty Inc.	351 West Muskegon Drive	5099
Engineered Machines Products	125 North Blue Road	359903
Service Engineering, Inc.	2190 West Main Street	
MPI Release Technologies	2162 Hastings Blvd.	

The following section of the SWQMP includes a map of Greenfield’s corporate limits and specific information on the Illicit Discharge Detection and Elimination BMPs.



GREENFIELD

0 3,000 ft



## Outfall Screening for Illicit Discharges

### ***BMP Description***

Outfalls will be inspected during dry weather for the outfall condition, erosion and scouring present at the outfall, the amount of flow, and signs of pollution (such as odor, chemical sheen, color, etc.). Inspection sheets will be used to document the inspections. Photographs will be taken to assist in documenting pollution problems. Pollution problems will be investigated and eliminated according to the Illicit Discharge Ordinance. Sampling will be conducted as needed to identify potential pollutants.

### ***Measurable Goals***

MS4 outfalls will be inspected for signs of illicit discharges once per permit term.

Inspection sheets will be used to document the inspections and the investigation of any illicit discharges.

All suspected illicit discharges will be investigated. The goal is to eliminate all illicit discharges that are detected.

### ***Responsible Entity***

City of Greenfield, Storm Water Department

### ***Schedule***

All MS4 outfalls will be inspected for illicit discharges at least once per permit term.

### ***Reporting and Recordkeeping***

Dry weather inspections sheets and illicit discharge tracking forms will be kept on file at the City Hall. Information will be reported in the annual report.

Forms: Visual Inspection and Physical Monitoring Form

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***



**STORM WATER MANAGEMENT PROGRAM  
ILLCIT DISCHARGE TRACKING FORM**

IDENTIFIED BY  Telephone Hotline  
 Dry Weather Outfall Inspections  
 Other \_\_\_\_\_

DATE \_\_\_\_\_

LOCATION \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

POTENTIAL OR ACTUAL SOURCE \_\_\_\_\_

POTENTIAL OR ACTUAL POLLUTANTS PRESENT \_\_\_\_\_

PROBLEM REFERRED TO \_\_\_\_\_

ACTION TAKEN \_\_\_\_\_

DATE OF FOLLOW-UP INSPECTION \_\_\_\_\_

INSPECTED BY \_\_\_\_\_ SIGNATURE \_\_\_\_\_

ILLCIT DISCHARGE ELIMINATED  YES  NO

NOTE: WHEN APPLICABLE, ATTACH APPROPRIATE SAMPLING DATA RESULTS, AND DOCUMENTATION OF CORRESPONDENCE

## Citizen Watch Group/Storm Water Hotline

### ***BMP Description***

The City of Greenfield will develop and advertise a hotline for members of the community to report pollution, illegal dumping, illicit discharges, and other storm water concerns. Complaints will be directed to the Storm Water Department at 317-477-4320, a complaint form will be filled out, and the progress of resolving the complaint will be tracked.

The storm water hotline will also be advertised on the City's storm water webpage.

### ***Measurable Goals***

All calls to the Storm Water Hotline will be recorded, investigated, and tracked.

The Storm Water Hotline will be posted on the City Storm water Webpage and also advertised.

The number of complaints will be sorted by type (flooding, erosion, water quality, dumping, construction site, or other).

### ***Responsible Entity***

The Greenfield Storm Water Department will receive complaints, pass on information to appropriate responders, and track the status.

### ***Schedule***

On-going

### ***Reporting and Recordkeeping***

A complaint form will be used to track complaints. The Storm Water Department will record the number of calls received and retain copies of complaint forms. These forms will be kept on record at the Storm Water Department. Results will be reported in annual reports.

Form: Storm Water Hotline Form

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

**STORM WATER MANAGEMENT PROGRAM  
STORM WATER HOTLINE FORM**

COMPLAINT RECEIVED BY \_\_\_\_\_ DATE \_\_\_\_\_

NAME (Resident/Owner) \_\_\_\_\_

STREET ADDRESS \_\_\_\_\_

\_\_\_\_\_

HOME PHONE \_\_\_\_\_

DAYTIME PHONE \_\_\_\_\_

NATURE OF PROBLEM

\_\_\_ Flooding \_\_\_ Erosion \_\_\_ Water Quality \_\_\_ Dumping \_\_\_ Construction Site \_\_\_ Other \_\_\_\_\_

FREQUENCY OR DATE OF OCCURRENCE \_\_\_\_\_

LOCATION \_\_\_\_\_

DESCRIPTION OF PROBLEM \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

COMPLAINT REFERRED TO \_\_\_\_\_

COMPLAINT RESOLUTION \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Illicit Discharge Ordinance

### ***BMP Description***

The City of Greenfield has developed an ordinance to prohibit illicit discharges into MS4 conveyances. The ordinance describes detection, notification, and enforcement procedures. The ordinance will be posted on the City webpage along with information on reporting illicit discharges.

### ***Measurable Goals***

The goal of this BMP is to adopt an ordinance (completed in 2006).

### ***Responsible Entity***

Inspections and public complaints will be the responsibility of the Storm Water Utility. Enforcement will be the responsibility of the City Board of Public Works.

### ***Schedule***

On-going

### ***Reporting and Recordkeeping***

A copy of the Illicit Discharge Ordinance and adoption date shall be retained by the City.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Storm Sewer Mapping

### ***BMP Description***

All known outfall conveyances with a pipe diameter of 12 inches or larger and all open ditches with a 2 foot or larger bottom width have been mapped in GIS. The depth of ditch, type (grass, concrete, etc.), and estimated width of the bottom will be noted. Greenfield will estimate the linear feet of conveyances per type of conveyance (“pipe” or “open ditch”, etc.). In addition, the outfalls of the MS4 system have been listed per latitude and longitude. A mapped and narrative description of the MS4 area will be updated as the corporate limits change. The narrative description shall include a description of the MS4 area based upon sections, townships, and/or street boundaries. The mapped description will have the MS4 area depicted on an overall map.

### ***Measurable Goals***

Greenfield’s storm sewer system map will continue to be updated if new storm sewers, ditches, or outfalls are installed or identified. The map will be used in identifying and tracking illicit discharges.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

The storm sewer map will be updated as needed.

### ***Reporting and Recordkeeping***

Progress of the storm sewer mapping program will be reported in annual reports.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Household Hazardous Waste Disposal

### ***BMP Description***

Hancock County provides hazardous waste disposal opportunities for Greenfield residents. Residents of Hancock County can utilize the Hancock County Solid Waste Management District (SWMD) collections.

### ***Measurable Goals***

Demonstrate an increase in the number of participating in the Hazardous Waste Disposal opportunities.

Demonstrate an increase in the amount of waste that is diverted from a landfill or that is improperly disposed of otherwise.

Previous annual reports will be used for comparison purposes.

### ***Responsible Entity***

The Hancock County Solid Waste Management District is responsible for collection. The City of Greenfield is responsible for, assisting with promotion of the events and reporting and record keeping.

### ***Schedule***

The Hancock County Household Hazardous Waste collections are on-going.

### ***Reporting and Recordkeeping***

The MS4 Operator will contact the Hancock County SWMD to obtain measurable goal information. Records of advertisements and the amount of material collected will be kept on file with the MS4 Operator. Information will be reported in annual reports.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

#### **4.4 Construction Site Storm Water Runoff Control**

Sediment loss and erosion from construction sites is a main contributor to storm water pollution. This pollution source can be minimized through the installation of structural BMPs during development and the implementation of nonstructural BMPs.

The City of Greenfield has established a construction site storm water runoff control ordinance, and a set of storm water pollution control standards for construction sites. The ordinance and standards adhere to Rule 5 language and regulate developments with land disturbance greater than or equal to one acre.

The MS4 will also be required to follow these requirements on projects owned by the City of Greenfield. Projects owned by the City of Greenfield will continue to have their plans reviewed by the Hancock County SWCD.

In accordance with Rule 13, construction site plan review, inspection and enforcement for projects with greater than or equal to one acre of land disturbance is the responsibility of the MS4. The City of Greenfield will conduct construction site plan review, construction site inspections, and enforcement procedures.

In conjunction with the public education and outreach MCM, Greenfield will implement BMPs to solicit and receive public complaints and inquiries regarding construction sites. In conjunction with the illicit discharge MCM, Greenfield will implement BMPs to investigate and track public inquiries and potential illicit discharges, including those resulting from construction activity. Specific information on the Construction Site Storm Water Runoff Control BMPs is included in the following BMP detail sheets.

## Ordinance for Construction Site Erosion and Sediment Control

### ***BMP Description***

An ordinance containing the following elements has been established for construction site run-off control.

1. Requirement to install erosion and sediment control measures
2. Requirement to manage other construction site wastes
3. Adoption of Erosion and Sediment Control Standards
4. Clear definition of who must submit Erosion and Sediment Control information or plans
5. Requirement to obtain plan approval prior to initiation of land disturbing activities
6. Provisions for submittal of revised Erosion and Sediment Control plans (ESCP) or information if site plan or conditions change during construction
7. Allow right-of-entry for inspection
8. Enforcement authority, with provisions for penalties

### ***Measurable Goals***

The goal of this BMP is to develop an ordinance. The City of Greenfield has developed a Storm Water Ordinance that is consistent with the requirements in Rule 13 and Rule 5.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

The ordinance was adopted in October of 2006. The ordinance is continually enforced.

### ***Reporting and Recordkeeping***

Retain a copy of the ordinance and adoption date.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Standards for BMPs Associated with Construction Activities

### ***BMP Description***

The City of Greenfield will develop Storm Water Pollution Prevention (SWPP) and Erosion Control Standards for compliance with this minimum control measure. These standards have been incorporated into the City's Storm Water Management Ordinance (2006-13) and the Storm Water Technical Standards Manual. The standards are in accordance with Rule 5.

### ***Measurable Goals***

SWPP and Erosion and Sediment Control Standards reference Rule 5 and the Indiana Storm Water Quality Manual.

All projects that disturb one acre or more are required to follow these standards and obtain a Rule 5 permit.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

The standards were adopted in October of 2006. The standards are continually implemented.

### ***Reporting and Recordkeeping***

Retain a copy of the Storm Water Standards and the adoption date. Record the number of permits issued signifying compliance with the Standards.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Plan Review for Rule 5 Compliance

### ***BMP Description***

The City of Greenfield presently has in place a formal system for performing technical review of proposed developments within the MS4. The technical review includes storm drainage and erosion and sediment controls. A Technical Review and Comment Form will be used during Rule 5 review.

### ***Measurable Goals***

All construction projects meeting the requirements of 327 IAC 15-5 (Rule 5) will be reviewed for SWPP and Erosion and Sediment Control measures.

### ***Responsible Entity***

Construction plans will be submitted to and approved by the City of Greenfield.

### ***Schedule***

On-going as new development occurs.

### ***Reporting and Recordkeeping***

Record the number of permits issued by the MS4 each year and the number of hours dedicated to reviewing erosion and sediment control plans.

Form: Technical Review and Comment Form, Monthly Summary of Construction Projects Form

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Construction/Stormwater Pollution Prevention Plan Technical Review and Comment (*Form 1*)

Project Information	Project Name:					County:
	Plan Submittal Date:					Hydrologic Unit Code:
	Project Location Description:					
	Latitude and Longitude:					
	Civil Township:	Quarter:	Section:	Township:	Range:	
	Project Owner Name:					
	Contact:					
	Address:					
	City:	State:		Zip:		
Phone:	FAX:	E-Mail:				
Plan Preparer Name:						
Affiliation:						
Address:						
City:	State:		Zip:			
Phone:	FAX:	E-Mail:				

Plan Review	Review Date:					
	Principal Plan Reviewer:					
	Agency:					
	Address:					
	City:	State:		Zip:		
	Phone:	FAX:	E-Mail:			
	Assisted By:					

**PLAN IS ADEQUATE:** A comprehensive plan review has been completed and it has been determined that the plan satisfies the minimum requirements and intent of 327 IAC 15-5.

Please refer to additional information included on the following page(s).

**Submit Notice of Intent (NOI):** *Attach a copy of this cover page when submitting the NOI to the Indiana Department of Environmental Management. Construction activities may begin 48 hours following the submittal of the NOI. A copy of the NOI must also be sent to the Reviewing Authority (e.g. SWCD, DNR).*

---

A preliminary plan review has been completed; a comprehensive review will not be completed within the 28-day review period. The reviewing authority reserves the right to perform a comprehensive review at a later date and revisions to the plan may be required at that time to address deficiencies.

Please refer to additional information included on the following page(s).

**Submit Notice of Intent (NOI):** *Attach a copy of this cover page when submitting the NOI to the Indiana Department of Environmental Management. Construction activities may begin 48 hours following the submittal of the NOI. A copy of the NOI must also be sent to the Reviewing Authority (e.g. SWCD, DNR).*

---

**PLAN IS DEFICIENT:** Significant deficiencies were identified during the plan review.

Please refer to additional information included on the following page(s).

**DO NOT** file a Notice of Intent for this project.

**DO NOT** commence land disturbing activities until all deficiencies are adequately addressed, the plan re-submitted, and notification has been received that the minimum requirements have been satisfied.

---

Plan Revisions     Deficient Items    should be mailed or delivered to the Principal Plan Reviewer identified in the Plan Review Section above.

**Construction/Stormwater Pollution Prevention Plan - Technical Review and Comment (Form 1)**

Project Name: 0
Date Reviewed: 01/00/00

**Assessment of Stormwater Pollution Prevention Plan (Sections B & C)**

**Stormwater Pollution Prevention Plan - Construction Component (Section B)**

	Adequate	Deficient	Not Applicable	B	
					<i>The construction component of the Stormwater Pollution Prevention Plan includes stormwater quality measures to address erosion, sedimentation, and other pollutants associated with land disturbance and construction activities. Proper implementation of the plan and inspections of the construction site are necessary to minimize the discharge of pollutants. The Project Site Owner should be aware that unforeseen construction activities and weather conditions may affect the performance of a practice or the effectiveness of the plan. The plan must be a flexible document, with provisions to modify or substitute practices as necessary.</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>1 Description of potential pollutant sources associated with construction activities</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>2 Sequence describing stormwater quality measure implementation relative to land disturbing activities</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>3 Stable construction entrance locations and specifications (at all points of ingress and egress)</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>4 Sediment control measures for sheet flow areas</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>5 Sediment control measures for concentrated flow areas</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>6 Storm sewer inlet protection measure locations and specifications</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>7 Runoff control measures (e.g. diversions, rock check dams, slope drains, etc.)</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>8 Storm water outlet protection specifications</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>9 Grade stabilization structure locations and specifications</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>10 Location, dimensions, specifications, and construction details of each stormwater quality measure</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>11 Temporary surface stabilization methods appropriate for each season (include sequencing)</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>12 Permanent surface stabilization specifications (include sequencing)</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>13 Material handling and spill prevention plan</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>14 Monitoring and maintenance guidelines for each proposed stormwater quality measure</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>15 Erosion &amp; sediment control specifications for individual building lots</b>

**Stormwater Pollution Prevention Plan - Post Construction Component (Section C)**

	Adequate	Deficient	Not Applicable	C	
					<i>The post construction component of the Stormwater Pollution Prevention Plan includes the implementation of stormwater quality measures to address pollutants that will be associated with the final landuse. Post construction stormwater quality measures should be functional upon completion of the project. Long term functionality of the measures are critical to their performance and should be monitored and maintained.</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>1 Description of pollutants and their sources associated with the proposed land use</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>2 Sequence describing stormwater quality measure implementation</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>3 Description of proposed post construction stormwater quality measures (Include a written description of how these measures will reduce discharge of expected pollutants)</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>4 Location, dimensions, specifications, and construction details of each stormwater quality measure</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<b>5 Description of maintenance guidelines for post construction stormwater quality measures</b>

**Construction/Stormwater Pollution Prevention Plan - Technical Review and Comment (Form 1)**

**Project Name:** 0  
**Date Reviewed:** 01/00/00

*The technical review and comments are intended to evaluate the completeness of the Construction/Stormwater Pollution Prevention Plan for the project. The Plan submitted was not reviewed for the adequacy of the engineering design. All measures included in the plan, as well as those recommended in the comments should be evaluated as to their feasibility by a qualified individual with structural measures designed by a qualified engineer. The Plan has not been reviewed for other local, state, or federal permits that may be required to proceed with this project. Additional information, including design calculations may be requested to further evaluate the Plan.*

*All proposed stormwater pollution prevention measures and those referenced in this review must meet the design criteria and standards set forth in the "Indiana Stormwater Quality Manual" from the Indiana Department of Natural Resources, Division of Soil Conservation or similar Guidance Documents.*

**Please direct questions and/or comments regarding this plan review to:**

0

**Please refer to the address and contact information identified in the Plan Review Section on page 1.**

**Assessment of Construction Plan Elements (Section A)**

**The Construction Plan Elements are adequately represented to complete a plan review:**

**Yes**       **No**

**The items checked below are deficient and require submittal to meet the requirements of the rule.**

A		A	
<input type="checkbox"/>	<b>1</b> Index showing locations of required Plan Elements	<input type="checkbox"/>	<b>2</b> 11 by 17 inch plat showing building lot numbers/boundaries and road layout/names
<input type="checkbox"/>	<b>3</b> Narrative describing the nature and purpose of the project	<input type="checkbox"/>	<b>4</b> Vicinity map showing project location
<input type="checkbox"/>	<b>5</b> Legal Description of the Project Site (Include Latitude and Longitude - NOI Requirement)	<input type="checkbox"/>	<b>6</b> Location of all lots and proposed site improvements (roads, utilities, structures, etc.)
<input type="checkbox"/>	<b>7</b> Hydrologic unit code (14 Digit)	<input type="checkbox"/>	<b>8</b> Notation of any State or Federal water quality permits
<input type="checkbox"/>	<b>9</b> Specific points where stormwater discharge will leave the site	<input type="checkbox"/>	<b>10</b> Location and name of all wetlands, lakes and water courses on and adjacent to the site
<input type="checkbox"/>	<b>11</b> Identification of all receiving waters	<input type="checkbox"/>	<b>12</b> Identification of potential discharges to ground water (abandoned wells, sinkholes, etc.)
<input type="checkbox"/>	<b>13</b> 100 year floodplains, floodways, and floodway fringes	<input type="checkbox"/>	<b>14</b> Pre-construction and post construction estimate of Peak Discharge (10 Year storm event)
<input type="checkbox"/>	<b>15</b> Adjacent landuse, including upstream watershed	<input type="checkbox"/>	<b>16</b> Locations and approximate boundaries of all disturbed areas (Construction Limits)
<input type="checkbox"/>	<b>17</b> Identification of existing vegetative cover	<input type="checkbox"/>	<b>18</b> Soils map including soil descriptions and limitations
<input type="checkbox"/>	<b>19</b> Locations, size and dimensions of proposed stormwater systems (e.g. pipes, swales and channels)	<input type="checkbox"/>	<b>20</b> Plans for any off-site construction activities associated with this project (sewer/water tie-ins)
<input type="checkbox"/>	<b>21</b> Locations of proposed soil stockpiles and/or borrow/disposal areas	<input type="checkbox"/>	<b>22</b> Existing site topography at an interval appropriate to indicate drainage patterns
<input type="checkbox"/>	<b>23</b> Proposed final topography at an interval appropriate to indicate drainage patterns		

**Construction/Stormwater Pollution Prevention Plan**

<b>Project Name:</b>	0
<b>Date Reviewed:</b>	1/0/1900

<b>Priority Site Information</b>
<input type="checkbox"/> Nature and Extent of Construction
<input type="checkbox"/> Close Proximity to Sensitive Area
<input type="checkbox"/> Steep Topography on Proposed Construction Site
<input type="checkbox"/> Close Proximity to Wetlands
<input type="checkbox"/> Potential for Direct Runoff to Receiving Waters
<input type="checkbox"/> Not a Priority Site

<b>Construction/Stormwater Pollution Prevention Plan Comments</b>
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**RULE 13 –**  
**Monthly Summary Report of Construction Projects**  
 State Form 51276 (R3 / 11-03)  
 INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**For questions regarding this form, contact:**  
 IDEM – Rule 13 Coordinator  
 100 North Senate Avenue, Rm 1255  
 P.O. Box 6015  
 Indianapolis, IN 46206-6015  
 Phone: (317) 234-1601 or  
 (800) 451-6027, ext. 41601 (within Indiana)  
 Web Access:  
<http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule13.html>

- NOTE:**
- Starting one (1) year after the submittal of the Notice of Intent (NOI) letter and once the regulated MS4 entity has a sufficient construction site storm water run-off control program, this completed form must be submitted each month pursuant to 327 IAC 15-13-18(b).
  - This completed form must be submitted by the last day of the following month.
  - If no projects occur within a given month, this form does not need to be submitted.
  - This exact form does not need to be used if the information is conveyed using a form of another format containing the same type of information - providing the form is preapproved by, and provided to, IDEM.
  - Return this completed and signed form, and any required addenda by mail to the IDEM Rule 13 Coordinator at the address listed in the box on the upper-right.

Reporting Month/Year: (check one in each column)	X	Month	X	Year
	<input type="checkbox"/>	January	<input type="checkbox"/>	2005
<input type="checkbox"/>	February	<input type="checkbox"/>	2006	
<input type="checkbox"/>	March	<input type="checkbox"/>	2007	
<input type="checkbox"/>	April	<input type="checkbox"/>	2008	
<input type="checkbox"/>	May	<input type="checkbox"/>	2009	
<input type="checkbox"/>	June	<input type="checkbox"/>	2010	
<input type="checkbox"/>	July	<input type="checkbox"/>	2011	
<input type="checkbox"/>	August	<input type="checkbox"/>	2012	
<input type="checkbox"/>	September	<input type="checkbox"/>	2013	
<input type="checkbox"/>	October	<input type="checkbox"/>	2014	
<input type="checkbox"/>	November	<input type="checkbox"/>	2015	
<input type="checkbox"/>	December	<input type="checkbox"/>	2016	

MONTHLY SUMMARY REPORT OF CONSTRUCTION PROJECTS					
	Project Name	Project Address	Project Duration	Permit Status	Enforcement Actions
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

**MS4 Entity:** \_\_\_\_\_  
 (typed or printed)

**NPDES Permit #:** INR040 \_\_\_\_\_

**Responsible Individual\*:** \_\_\_\_\_  
 (typed or printed)

**Date:** \_\_\_\_\_  
 (mm/dd/year)

\*Example: the individual can be the MS4 Operator, or a responsible individual for a regulated MS4 entity.

## Erosion and Sediment Control Hotline

### ***BMP Description***

The City of Greenfield has developed and advertised a hotline for members of the community to report construction site erosion control problems. Complaints will be directed to the Storm Water Department at 317-477-4320, a complaint form will be filled out, and the progress of resolving the complaint will be tracked.

### ***Measurable Goals***

All calls to the hotline will be recorded, investigated, and tracked. Complaint forms will be kept on file until the resolution of the complaint. The complaints are sorted by type (flooding, erosion, water quality, dumping, construction site, or other).

The hotline will be advertised through the City's storm water webpage.

### ***Responsible Entity***

The Storm Water Department will receive complaints, pass on information to appropriate responders, and track the status.

### ***Schedule***

On-going

### ***Reporting and Recordkeeping***

Complaint forms and investigation records are kept on file at the City Hall and reviewed annually to determine pollution concerns and recommendations for BMPs, if necessary. Complaints and resolutions will be summarized in annual reports.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Erosion and Sediment Control Inspections

### ***BMP Description***

The MS4 will develop policies and procedures for erosion and sediment control inspections and assign responsibilities for inspections. Priority sites for inspection will be identified during the plan approval process and will be noted on the Technical Review and Comment Form.

Also, the City of Greenfield will conduct an initial erosion and sediment control inspection and a final inspection to ensure that vegetation is covered at least 70% density and the site is stabilized of all building permits equal to or greater than 10,000 square feet.

### ***Measurable Goals***

All construction sites issued Rule 5 permits from IDEM will be inspected by the MS4.

An initial and final erosion and sediment control inspection will be conducted for all building permits equal to or greater than 10,000 square feet.

Priority sites will be targeted for more frequent inspections.

### ***Responsible Entity***

Storm Water Department

### ***Schedule***

Rule 5 visual checks are completed during regular building inspections throughout the length of each project and more frequent for non-compliance issues.

An initial and final erosion and sediment control inspection will be completed for projects greater than 10,000 square feet of disturbance.

### ***Reporting and Recordkeeping***

The results of inspections and enforcement actions will be recorded on inspection sheets and included in monthly reports and the annual report. Record the total number of construction sites inspected. Record the number of incidents of non-compliance or deficiencies identified through inspections. Document corrective actions taken by project site owners/contractor based upon site inspections. Retain copies of inspection forms.

Forms: Construction Site Inspection Form

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***



**City of Greenfield**  
**Department of Engineering and Planning**  
**SWPPP/Erosion Control Inspection**

Permit #:	Subdivision:	Lot #:	Date:
-----------	--------------	--------	-------

Property Address:	Project Name:
-------------------	---------------

On Site Representative(s):	Title(s):	Phone: (    )
		Fax: (    )
		Phone: (    )
		Fax: (    )

Contractor:	Developer:
-------------	------------

Inspection Type:       Preconstruction       Routine       Post Construction       Complaint

Prior Enforcement       None       Fine       Stop Work Order

Areas Evaluated During Inspection  
(S = Satisfactory; U = Unsatisfactory; N = Not Evaluated; N/A = Not Applicable)

Perimeter Erosion Control	Storm Drain Inlets	Conveyance Channels
Individual Building Sites	De-Watering	Roadways
Construction Entrance	Trash/Construction Debris	Soil/Material Stockpiles
Erosion Control Maintenance	Other:	Other:

	Corrective Actions:	Site Diagram
1	Install appropriate sediment control measures as identified on Lot Plot Plan.	
2	Install erosion control measures properly.	
3	Install additional erosion control measures.	
4	Repair erosion control measures.	
5	Remove accumulated sediment from erosion control measures	
6	Provide temporary or permanent seeding and/or mulching	
7	Reshape and Stabilize conveyance channels.	
8	Protect storm drain inlets	
9	Reshape and stabilize side slopes of sediment traps, basins or detention/retention basins.	
10	Other:	
11	Other	

Comments

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## Enforcement of Erosion and Sediment Control Requirements

### ***BMP Description***

As required, the MS4 will take enforcement actions for noncompliance with the construction site runoff control program requirements. Enforcement actions will include the following:

- Delay of building inspection
- Warning letters of noncompliance
- Violation notices
- Assessment of penalties
- Stop work orders

### ***Measurable Goals***

All enforcement actions will be recorded on inspection sheets and included in monthly reports to IDEM and in the annual report.

All repeat offenders will be encouraged to attend erosion and sediment control training sessions.

### ***Responsible Entity***

Enforcement will be the responsibility of the Greenfield Storm Water Department and ultimately the Board of Public Works and Safety.

### ***Schedule***

Enforcement is on-going.

### ***Reporting and Recordkeeping***

Record the number and type of enforcement action taken. Record the results of the enforcement actions (project termination, correction of deficiencies, etc.).

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Training of Reviewers and Inspectors

### ***BMP Description***

The MS4 will provide training or insure construction site inspectors are qualified to review and inspect sites for storm water pollution prevention and erosion and sediment control plans. Annual training will be accomplished via enrollment in state sponsored training or other approved training sessions and will utilize training sessions and workshops conducted by state and local groups (DNR, IDEM, IACT, County SWCD, etc).

### ***Measurable Goals***

All MS4 reviewers and inspectors will receive training on an annual basis to ensure that they maintain a current knowledge in the area of Rule 5 planning and plan review requirements.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

On-going

### ***Reporting and Recordkeeping***

Retain documentation that all plan reviewers and site inspectors have received annual sediment and erosion control training. Retain documentation of the number of reviewers and site inspectors either trained or certified in erosion and sediment control measures. Record the date of training and topics covered.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Identification of Priority Construction Sites

### ***BMP Description***

When construction plans are submitted to the City of Greenfield for review, the reviewer will identify priority sites for inspection and enforcement. The criteria for priority sites will be nature and extent of construction, proximity to sensitive areas, steep topography on proposed construction site, proximity to wetlands, and potential for direct run-off to receiving waters. Priority designation will be recorded on the Technical Review and Comment Form during plan review. Construction sites will be inspected in order of priority.

### ***Measurable Goals***

All construction will be rated according to priority during the plan review process. Record the number of construction priority construction sites.

### ***Responsible Entity***

Storm Water Department

### ***Schedule***

Potential priority construction sites will be evaluated during the construction review process.

### ***Reporting and Recordkeeping***

The criteria for high priority sites and the number of high priority sites inspected will be reported in the monthly and/or annual report. The number of high priority sites identified will be reported annually.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Erosion Control Construction Plan Review for Municipal Projects

### ***BMP Description***

For those construction activities (1 acre or larger) operated by the municipality, construction plans will be submitted to the Hancock County Soil and Water Conservation District (SWCD) for review.

Notices of Intent for Rule 5 permitting will be sent to IDEM after plans are approved.

The MS4 will conduct self-evaluation inspections.

The County SWCD is responsible for compliance inspections for municipally-owned project.

### ***Measurable Goals***

All construction plans for municipal projects greater than or equal to one acre in disturbance will be reviewed by the County SWCD for construction site erosion and sediment control.

### ***Responsible Entity***

The City of Greenfield will be responsible for submitting all Construction Plans to the County SWCD.

### ***Schedule***

All construction plans for municipal projects, greater than or equal to one acre of disturbance, are currently reviewing by the SWCD. Non-municipal projects, greater than or equal to one acre of land disturbance, is reviewed by the MS4.

### ***Reporting and Recordkeeping***

Correspondence between the SWCD and the municipality regarding plan review will be kept on file. When the municipality has a project that requires a Rule 5 permit, it will be noted in the annual report.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## 4.5 Post Construction Storm Water Run-off Control

The purpose of the Post Construction Storm Water Run-off Control MCM is to create an overall development plan that will insure adequate, long-term storm water quality for discharges from new development and redevelopment construction site activities to the MS4 conveyance system. The City of Greenfield will encourage growth away from sensitive areas and require developers to plan and design for the minimization of pollutants in storm water discharges, which is more effective and cost efficient than reducing the discharge of pollutants after the discharge enters the storm drainage system.

The City of Greenfield established a post-construction storm water runoff control ordinance and a set of post-construction storm water pollution control standards for construction sites. The MS4 is required to follow these standards on projects owned by the City of Greenfield. Projects owned by the City of Greenfield will continue to have their plans reviewed by the Hancock County SWCD.

The City of Greenfield established the ordinance in 2006 and began implementation of the Post Construction Storm Water Run-off Control MCM in 2007. The Post Construction program includes the establishment of a post construction storm water run-off control ordinance and standards. The ordinance requires a post construction storm water pollution prevention plan which includes the requirements of 327 IAC 15-5-6.5(a)(8). Post Construction Standards were established. These standards define allowable structural BMP types in new development and redevelopment and structural BMP selection criteria and performance standards. Under the new set of standards, developers and the MS4 are required to use a combination of storage, infiltration, filtering, or vegetative practices to reduce the impact of pollutants in storm water run-off on receiving waters. In addition to the combination of practices, the following requirements were incorporated into the drainage standards:

- (1) Infiltration practices will not be allowed in wellhead protection areas.
- (2) Discharges from an MS4 area will not be allowed directly into sinkholes or fractured bedrock, without treatment that results in the discharge meeting Indiana ground water quality standards as referenced in 327 IAC 2-11.
- (3) Any storm water practice that is a Class V injection well must ensure that the discharge from such practices meets Indiana ground water quality standards as referenced in 327 IAC 2-11.
- (4) As site conditions allow, the rate at which water flows through the MS4 conveyances shall be regulated to reduce outfall scouring and stream bank erosion.
- (5) As site conditions allow, a vegetated filter strip of appropriate width shall be maintained along unvegetated swales and ditches.
- (6) New retail gasoline outlets, new municipal, state, federal, or institutional refueling areas, or outlets and refueling areas that replace their existing tank systems, shall be required by MS4 ordinance or other regulatory means to design and install appropriate practices to reduce lead, copper, zinc, and polyaromatic hydrocarbons in storm water run-off.

Summaries of the Post Construction Site Storm Water Runoff Control BMPs are included in the following BMP detail sheets.

## Post Construction Training

### ***BMP Description***

MS4 area personnel responsible for plan review, inspection, and enforcement of post construction BMPs will receive annual training addressing appropriate control measures, inspection protocol, and enforcement procedures.

### ***Measurable Goals***

Post construction BMP training will be conducted annually.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

Training will be conducted at least annually.

### ***Reporting and Recordkeeping***

Retain copies of sign-in sheets and agendas documenting post construction training sessions for municipal personnel.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Post Construction Ordinance

### ***BMP Description***

Through adoption of an ordinance, the MS4 will implement planning procedures to promote improved water quality. This will include the post construction requirements of 327 IAC15-5-6.5(a)(8). Where appropriate and to the extent of the MS4 operator's authority, the procedures will include the following:

1. Buffer strip and riparian zone preservation
2. Filter strip creation
3. Minimization of land disturbance and surface imperviousness
4. Minimization of directly connected impervious areas
5. Maximization of open space
6. Directing the community's physical growth away from sensitive areas and toward areas that can support it without compromising water quality

### ***Measurable Goals***

The goal of this BMP is to adopt an ordinance. The post construction storm water runoff control ordinance was adopted in 2006.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

The ordinance was adopted in 2006.

### ***Reporting and Recordkeeping***

The MS4 Operator will retain a copy of the ordinance and the adoption date.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Post Construction Control Standards

### ***BMP Description***

The City of Greenfield has adopted post construction storm water run-off control standards. Those projects disturbing one or more acres of land or sites that are less than an acre but part of a larger common plan to disturb one acre or more will be required to use a combination of storage, infiltration, filtering, or vegetative practices (BMPs) to reduce the impact of pollutants in storm water run-off on receiving waters. The standards will describe the requirement for written operational and maintenance plans for all storm water structural BMPs.

### ***Measurable Goals***

Post construction drainage standards were adopted in 2006.

The post construction standards are required for all development or redevelopment within the MS4 area that meets the land disturbance criteria.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

Implementation of the standards will be on-going.

### ***Reporting and Recordkeeping***

The MS4 Operator will retain a copy of the current post construction drainage standards and the adoption date.

The City of Greenfield will retain appropriate records regarding post construction controls.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Structural BMP Inspections

### ***BMP Description***

Structural BMPs in Greenfield will be inspected to determine if they are maintained and functioning properly. Greenfield will provide education as well as operation and maintenance information where necessary to private landowners, homeowner associations, commercial landowners, and industrial landowners.

### ***Measurable Goals***

The goal of this BMP is to inspect structural BMPs at least once per permit term.

Recommendations for improvements to the BMPs will be documented.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

Structural BMPs will be inspected at least once per permit term. Educational information will be distributed and recommendations will be made on an as-needed basis.

### ***Reporting and Recordkeeping***

The MS4 Operator will keep inspection sheets and correspondence with structural BMP owners on file at the City Hall.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

#### **4.6 Municipal Operations Pollution Prevention and Good Housekeeping**

The purpose of the Municipal Operations Pollution Prevention and Good Housekeeping MCM is to prevent or reduce pollutant run-off from municipal operations within the MS4. This program will address storm water discharges from MS4 activities through a program of municipal employee education, proper municipal operations, proper chemical storage practices, reduction in chemical usage, and recycling. This program will implement BMPs for material storage and chemical application practices and the reduction of floatables and other pollutants discharged from the storm sewer system.

Site inspections at municipal facilities for the City of Greenfield are conducted annually. The City's municipal areas include the following:

- Water and Sewer Maintenance Department and Water Plants
- Wastewater Treatment Plant
- City Maintenance Garage
- Street Department
- Animal Management Department
- Fire Department
- Power and Light Department
- Parks Department

Overall, the municipal facilities are kept very clean and well organized. As a result of the site inspections, existing BMPs are documented and new BMPs are developed for this minimum control measure. Specific information on the Municipal Operations Pollution Prevention and Good Housekeeping BMPs are included in the following BMP detail sheets.

## Training for Municipal Employees

### ***BMP Description***

The City of Greenfield will conduct annual training for municipal employees. All Best Management Practices (BMPs) will be addressed annually at training sessions. Training sessions will include the following topics as appropriate: litter pick-up; catch basin cleaning procedures; street sweeping procedures; maintenance of roadside vegetation and ditch stabilization; outfall inspection; outfall scouring repair, road salt storage and application; designated snow stockpile area; chemical storage practices; vehicle and equipment maintenance; vehicle and equipment washing; spill prevention and clean-up practices; fertilizer/pesticide use; recycling and waste disposal.

### ***Measurable Goals***

All municipal employees engaged in activities that could impact storm water will receive annual storm water pollution prevention training.

### ***Responsible Entity***

The MS4 Operator will ensure that all municipal employees attend a storm water pollution prevention training session.

### ***Schedule***

On-going

### ***Reporting and Recordkeeping***

Retain copies of sign-in sheet and meeting agendas verifying training topics and the date of the training event.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Review of CSOOP and LTCP

***BMP Description***

There are no combined sewers within the City limits of Greenfield. Therefore, the City does not have a Combined Sewer Overflow Operational Plan (CSOOP) or Long Term Control Plan (LTCP).

***Measurable Goals***

N/A

***Responsible Entity***

N/A

***Schedule***

N/A

***Reporting and Recordkeeping***

N/A

<p><b><i>Minimum Control Measures:</i></b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Public Education</li> <li><input type="checkbox"/> Public Involvement</li> <li><input type="checkbox"/> Illicit Discharge</li> <li><input type="checkbox"/> Construction Site Control</li> <li><input type="checkbox"/> Post Construction Control</li> <li><input type="checkbox"/> Municipal Operations</li> </ul>	<p><b><i>Target Constituents:</i></b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Residents</li> <li><input type="checkbox"/> Public Service Employees</li> <li><input type="checkbox"/> Commercial Facilities</li> <li><input type="checkbox"/> Industrial Facilities</li> <li><input type="checkbox"/> Construction Site Personnel</li> <li><input type="checkbox"/> Visitors</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b><i>New Program</i></b></li> <li><input type="checkbox"/> <b><i>Current Program</i></b></li> </ul>
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## Municipal Litter Pick-Up

***BMP Description***

Currently, litter is removed from parks and municipal properties daily. Litter is also removed by municipal employees during mowing activities.

***Measurable Goals***

Discuss litter pick up with all municipal employees during annual storm water BMP training.

Litter will be removed from all municipal properties daily and prior to mowing.

***Responsible Entity***

The MS4 Operator will verify that litter pick-up has been included in storm water training events.

***Schedule***

Annual training will be conducted. Litter pick-up is an on-going activity.

***Reporting and Recordkeeping***

Record the date of training events and retain a copy of training agenda or meeting notes signifying that municipal litter pick up was discussed. Record locations where litter picked up.

***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Catch Basin Cleaning

### ***BMP Description***

Catch basins are cleaned out as needed with a Vac Truck. Catch basins in the MS4 area are cleaned at least once during the permit term. The Vac Truck is stored indoors when not in use.

### ***Measurable Goals***

Demonstrate a decrease in the potential for storm water pollution by recording the amount of debris collected from catch basin cleaning.

Catch basins will be cleaned as needed and at least once during the permit term.

### ***Responsible Entity***

Sewer Department personnel perform catch basin cleaning activities  
The MS4 Operator will record the amount of material removed from catch basins.

### ***Schedule***

Catch basin cleaning will be performed on a periodic basis.

### ***Reporting and Recordkeeping***

The MS4 Operator will record the total amount of material removed from catch basins. Totals will be recorded in annual reports.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Street Sweeping

### ***BMP Description***

Municipal streets are swept with a street sweeper within the City limits of Greenfield. Material removed through sweeping operations is taken to a regulated landfill for disposal. The street sweeper is stored indoors when not in use.

### ***Measurable Goals***

Demonstrate a decrease in the potential for storm water pollution due to the proper disposal of material collected from street sweeping.

### ***Responsible Entity***

City of Greenfield, Street Department

### ***Schedule***

Streets will be swept at least annually.

### ***Reporting and Recordkeeping***

Street sweeper operators will record the total amount of material removed from sweeping operations. Yearly totals will be recorded in annual reports.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Heavy Trash, Christmas Tree, and Leaf Collection. Compost and Mulch Give-Away.

### ***BMP Description***

The City conducts annual heavy trash, Christmas tree, leaf collection pick-up days. Also, the City annually gives away compost and mulch during the spring.

### ***Measurable Goals***

One goal of this BMP is to properly dispose of heavy trash that may not be properly disposed of otherwise.

Another goal of this BMP is to divert natural debris from landfills through recycling.

Demonstrate a decrease in illicit discharges due to leaves that could enter the storm water conveyance system.

Report the amount of heavy trash, Christmas trees, and leaves collected annually.

Annually advertise pertinent information regarding these services.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

Annually

### ***Reporting and Recordkeeping***

Report and record the days these services were provided in the annual report. Report the amount of trash, Christmas trees, and leaves collected in the annual report.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Maintenance of Roadside Shoulders and Ditches

### ***BMP Description***

The City will perform roadside shoulder and ditch stabilization as required for areas that have become eroded or unvegetated. Stabilization BMPs include the placement of riprap in ditches that are eroded from high flows, re-establishing grass cover along roadside shoulders, the use of erosion control blanketing along eroded slopes, or other similar activities.

Training shall be conducted for municipal employees to identify problem areas and learn appropriate stabilization techniques. Problem areas may be identified during mowing operations and other daily activities.

For areas maintained by the City, grass covered areas will be re-seeded as needed to re-establish appropriate vegetation.

### ***Measurable Goals***

Demonstrate a decrease in pollution due to erosion by recording the linear feet of stabilized roadside shoulders or ditches as well as the total area re-vegetated.

### ***Responsible Entity***

Municipal employees in their respective areas will be responsible for identifying problem areas and stabilization activities. The MS4 Operator will verify that BMPs area included in storm water training events.

### ***Schedule***

Annual training will be conducted. Roadside shoulder and ditch maintenance are on-going activities.

### ***Reporting and Recordkeeping***

Document the total shoulder area or length of ditch stabilized. Records will be kept at the Storm Water Department and reported in annual reports.

<p><b><i>Minimum Control Measures:</i></b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Public Education</li> <li><input type="checkbox"/> Public Involvement</li> <li><input type="checkbox"/> Illicit Discharge</li> <li><input type="checkbox"/> Construction Site Control</li> <li><input type="checkbox"/> Post Construction Control</li> <li><input checked="" type="checkbox"/> Municipal Operations</li> </ul>	<p><b><i>Target Constituents:</i></b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Residents</li> <li><input checked="" type="checkbox"/> Public Service Employees</li> <li><input type="checkbox"/> Commercial Facilities</li> <li><input type="checkbox"/> Industrial Facilities</li> <li><input type="checkbox"/> Construction Site Personnel</li> <li><input type="checkbox"/> Visitors</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b><i>New Program</i></b></li> <li><input checked="" type="checkbox"/> <b><i>Current Program</i></b></li> </ul>
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## Outfall Scouring Repair

### ***BMP Description***

The MS4 will conduct dry weather inspections at all storm sewer outfalls at least once per permit term. Outfalls will be evaluated for erosion scouring conditions during outfall inspections.

Erosion and scouring will be repaired by placing riprap around the outfall and in eroded areas. Severely eroded areas may require additional measures or work to be contracted out, as determined by the MS4 Operator.

### ***Measurable Goals***

Demonstrate a decrease in pollution due to outfall scouring by recording the number of storm water outfall areas remediated from scouring conditions.

All outfalls will be inspected once during each permit term for erosion and scouring conditions.

Outfalls with scouring will be repaired with riprap, or with additional measures as required.

### ***Responsible Entity***

The MS4 Operator will ensure that outfall erosion and scouring conditions are noted during outfall inspections and that repair work is referred to the proper entity.

### ***Schedule***

Inspect outfall once per permit term and repair outfalls as needed

### ***Reporting and Recordkeeping***

Inspection reports and the number of outfalls repaired will be recorded and kept on file.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Road Salt Storage and Application Practices

### ***BMP Description***

Road salt is applied as needed to street surfaces. Road salt is purchased as-needed and is stored in a salt dome at the Street Department. The City will continue to purchase road salt only as needed, apply only when necessary and store deicing materials in a way that reduces the potential for storm water pollution. The minimum amount of chemicals necessary to achieve the desired result should be used.

Investigate alternate measures for road deicing that requires less chemicals.

### ***Measurable Goals***

Reduce the amount of road salt exposed to storm water through annual training to include proper handling and application practices for road salt.

### ***Responsible Entity***

The Street Department will be responsible for implementing practices. The MS4 Operator will ensure that BMPs are included in annual training.

### ***Schedule***

On-going. Conduct annual training for municipal employees.

### ***Reporting and Recordkeeping***

Retain copies of sign-in sheets and training session agendas to record the topics covered. Record the total amount of road salt applied each year.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Snow Disposal Areas

***BMP Description***

For very heavy snow events, Greenfield has designated the City property near the WWTP for snow disposal. The snow disposal area is only utilized when snowfall accumulation is excessive. Normally, snow is piled along the edge of streets.

***Measurable Goals***

Ensure that the snow is only deposited in this designated location and not placed on an impervious surface. Incorporate the BMP into annual municipal training sessions.

***Responsible Entity***

The snow disposal areas will be maintained by the Street Department. The MS4 Operator will ensure that this BMP is included in annual training events.

***Schedule***

Utilize the snow disposal area as necessary for heavy snowfall accumulation. Annual training will include this BMP.

***Reporting and Recordkeeping***

Keep copies of sign-in sheets and agendas for municipal training that covers snow disposal BMPs.

***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Municipal Chemical Storage Practices

### ***BMP Description***

Site inspections are conducted at least annually at all municipal facilities to identify BMPs to minimize chemical storage contact with storm water. The City will continue to conduct annual inspections and ensure that potential storm water pollutants are properly managed. The City will also identify storage tanks requiring secondary containment and ensure that small containers of chemicals are stored indoors. Annual checklists will be used to check all chemical storage and maintenance areas.

### ***Measurable Goals***

Prevent storm water pollution through the proper management and storage of chemicals. Ensure that all chemicals are stored and managed in a way that reduces/minimizes the potential contact with storm water by conducted regular inspections.

Perform annual training for all municipal employees on chemical storage.

### ***Responsible Entity***

The MS4 Operator will ensure that regular inspections are conducted and that BMPs are included in annual municipal training.

### ***Schedule***

On-going. Conduct annual training for municipal employees.

### ***Reporting and Recordkeeping***

Conduct regular inspections of chemical storage areas. Summarize information in the annual report. Retain copies of sign-in sheets and training session agendas on chemical storage.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Spill Prevention and Clean-Up for Municipal Operations

### ***BMP Description***

The MS4 currently has fueling sites at the City Maintenance Garage and Parks Department for fueling of equipment. Regular inspections will ensure that storage tanks have secondary containment and absorbent materials and spill clean up kits are kept in an easily accessible location.

### ***Measurable Goals***

Demonstrate an increase or maintenance in the number of refueling areas with secondary containment.

Ensure that spill kits are maintained in close proximity to areas where chemicals are stored or used.

### ***Responsible Entity***

The MS4 Operator will ensure that regular inspections are conducted and that BMPs are included in annual municipal training.

### ***Schedule***

On-going. Conduct annual training for municipal employees.

### ***Reporting and Recordkeeping***

Conduct regular inspections of fuel storage areas and document any deficiencies. Summarize information in the annual report. Retain copies of sign-in sheets and training session agendas that include spill prevention and clean-up.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## BMPs for Vehicle Maintenance Areas

### ***BMP Description***

Currently, vehicle maintenance is performed at the City Maintenance Garage. Maintenance activities are conducted inside where floor drains flow to an oil/water separator and then to the sanitary sewer. Employees conducting vehicle maintenance activities are trained in spill prevention and response practices. Spill kits are stored in an easily accessible location.

### ***Measurable Goals***

Continue to implement BMPs for vehicle maintenance by providing refresher training annually for municipal employees.

Vehicle maintenance will only be conducted in garages with floor drains connected to the sanitary sewer and accessible spill response kits.

### ***Responsible Entity***

The MS4 Operator will ensure that BMPs are implemented and included in annual training.

### ***Schedule***

Continue to implement BMPs and include in annual refresher training.

### ***Reporting and Recordkeeping***

Retain copies of sign-in sheets and training session agendas that cover BMPs for vehicle maintenance.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## BMPs for Vehicle and Equipment Washing

### ***BMP Description***

Municipal vehicle and equipment washing should be conducted indoors where wash water can either be collected, or where floor drains are connected to the sanitary sewer. In instances where indoor washing is not practical, it should be conducted in a designated location where the natural drainage flows to a flat, grass-covered area and does not directly drain to any storm conveyance or receiving stream. The flat grassy area will act as a vegetated strip for filtering potential storm water pollution.

### ***Measurable Goals***

BMPs will be implemented for all municipal vehicle and equipment washing.

### ***Responsible Entity***

The MS4 Operator will ensure that BMPs are implemented and included in annual training.

### ***Schedule***

Continually implement BMPs and include in annual refresher training.

### ***Reporting and Recordkeeping***

Retain copies of sign-in sheets and training session agendas that cover BMPs for vehicle washing.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## BMPs for Pesticide/Fertilizer Use

### ***BMP Description***

The City of Greenfield does not routinely apply fertilizers or pesticides to City property. In rare cases where these chemicals are used, the minimum amount of chemicals necessary to achieve the desired result is used. If pesticides are to be used, applied, handled, stored, mixed, loaded, transported, and disposed of, they will be according to the Indiana state chemist's guidance requirements. The City of Greenfield will ensure that the chemicals are stored in a manner that prevents contact with storm water.

Typically, herbicides are not applied to large area. Spot applications are used for weed control.

### ***Measurable Goals***

Document the areas where pesticides and fertilizers are applied by comparing the total number of acres applied to the total number of acres of MS4 property.

Document the total amount of fertilizers and pesticides applied each year.

Document any change in the frequency of applying fertilizers and pesticides.

### ***Responsible Entity***

Individual departments are responsible for the use and storage of pesticides and fertilizers. The MS4 operator will ensure that BMPs are included in annual training.

### ***Schedule***

Record the amount of pesticide and fertilizer used annually.

annual training sessions.

### ***Reporting and Recordkeeping***

Record the total amount of fertilizers/pesticides applied and the approximate total acreage or square feet of area. Retain copies of sign-in sheets and training session agendas to record training events.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Canine Parks

### ***BMP Description***

The City of Greenfield has a Canine Park (Rover's Run Bark Park) in Beckenholdt Park. This area is enclosed by a fence and is located greater than 150 feet from the nearest waterway. Users of the park must register to use the park and are told that they must always clean up after their pet.

### ***Measurable Goals***

No canine parks will be located within 150 feet of a receiving water.

Educational information about pollution prevention in the canine park will be distributed to registrants. The City will encourage pet owners to clean up after their pets.

### ***Responsible Entity***

City of Greenfield

### ***Schedule***

On-going

### ***Reporting and Recordkeeping***

The number of new registrants will be recorded annually. Any new information regarding new canine parks in Greenfield will be included in annual reports.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Recycling and Waste Disposal for Municipal Operations

### ***BMP Description***

Used oil generated by the municipality is stored in double-walled drums at the City Maintenance Garage. Used oil is collected for recycling by a contracted company on an as-needed basis. Yard waste collected from residents is stored outdoors and recycled as mulch and compost. Trash at all municipal facilities is collected in covered dumpsters.

### ***Measurable Goals***

The MS4 will attempt to reduce the amount of wastes from municipal areas and increase the amount of material recycled.

Explore opportunities for reducing the amount of hazardous materials.

### ***Responsible Entity***

Each municipal facility will be responsible for implementation of BMPs.

### ***Schedule***

Recycling and waste disposal are on-going activities. Recordkeeping should be conducted at least annually.

### ***Reporting and Recordkeeping***

Record the amount of waste properly disposed of or recycled.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Water Quality for Flood Control Projects

### ***BMP Description***

New flood management projects within the City of Greenfield will address storm water quantity and evaluate the potential for addressing storm water quantity and quality. During the pre-construction phase for new projects, a determination will be made to see if a practice can be modified to address the reduction of pollutants associated with storm water runoff or if additional BMPs can be designed into the watershed of the project to improve the water quality.

### ***Measurable Goals***

Document that all new-City controlled flood management projects are evaluated for water quality impacts.

### ***Responsible Entity***

The City of Greenfield will review new flood management projects.

### ***Schedule***

On-going

### ***Reporting and Recordkeeping***

Include a description of flood management projects that have been evaluated for water quality in annual reports.

#### ***Minimum Control Measures:***

- Public Education
- Public Involvement
- Illicit Discharge
- Construction Site Control
- Post Construction Control
- Municipal Operations

#### ***Target Constituents:***

- Residents
- Public Service Employees
- Commercial Facilities
- Industrial Facilities
- Construction Site Personnel
- Visitors

***New Program***

***Current Program***

## Chapter 5 - Abbreviations

### Abbreviations

BMP - Best Management Practice  
CSOOP - Combined Sewer Overflow Operational Plan  
DNR - Department of Natural Resources  
EPA - Environmental Protection Agency  
IDEM - Indiana Department of Environmental Management  
LTCP - Long Term Control Plan (for Combined Sewer Overflows)  
MS4 - Municipal Separate Storm Sewer System  
NOI – Notice of Intent  
NOT – Notice of Termination  
NPDES - National Pollution Discharge Elimination System  
SWCD - Soil and Water Conservation District  
SWQMP – Storm water quality management plan  
WWTP - Wastewater Treatment Plant

**Attachments**

**Schedule of Activities NPDES Phase II Storm Water Program - Greenfield MS4**

Compliance Schedule Tasks	2010												2011												2012												2013												
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
<b>Public Outreach and Education</b>																																																	
Distribution of Rain Garden Educational Information																																																	
Distribution of Stormwater Educational Information for Visitors																																																	
Educational Outreach for Commercial and Industrial Facilities																																																	
SWCD Educational Efforts																																																	
Website Education																																																	
Hancock County Memorandum of Agreement (MOA)																																																	
Education for Construction Site Personnel																																																	
Stormwater Inlets for New Development																																																	
<b>Public Participation and Involvement</b>																																																	
Storm Water Awareness Survey																																																	
Annual SWCD and SWMD meeting																																																	
Board of Public Works Meetings																																																	
Community Clean-up/County SWCD Clean-up Events																																																	
Steering Committee Advisory Group - Brandywine Watershed Project																																																	
<b>Illicit Discharge Detection and Elimination</b>																																																	
Screen Outfalls for Illicit Discharges																																																	
Stormwater Hotline																																																	
Maintain Storm Sewer and Outfall Maps																																																	
Household Hazardous Waste Disposal																																																	
<b>Construction/Post-Construction Site Storm Water Run-off Control</b>																																																	
Plan Review for SWPP and Erosion and Sediment Control																																																	
Erosion and Sediment Control Hotline																																																	
Erosion and Sediment Control Inspections																																																	
Post Construction Training																																																	
Structural BMP inspections																																																	
<b>Municipal Operations Pollution Prevention and Good Housekeeping</b>																																																	
Training for Municipal Employees																																																	
Municipal Litter Pick-Up																																																	
Catch Basin Cleaning																																																	
Street Sweeping																																																	
Heavy Trash, Christmas tree, and leaf collection and compost and mulch give away																																																	
Maintenance of Roadside Shoulders and Ditches																																																	
Outfall Scouring Repair																																																	
Road Salt Storage and Application Practices																																																	
Snow Disposal Areas																																																	
Municipal Chemical Storage Practices																																																	
Spill Prevention and Clean-Up for Municipal Operations																																																	
BMPs for Vehicle Maintenance Areas																																																	
BMPs for Vehicle and Equipment Washing																																																	
BMPs for Pesticide/Fertilizer Use																																																	
BMPs for Canine Parks																																																	
Recycling and Waste Disposal for Municipal Operations																																																	
Compile all information for Annual Report																																																	
Annual Reporting																																																	
Ongoing Storm Water Monitoring																																																	

NOTE: The Schedule of Activities includes the target month that has been selected as a goal for completing each task.

City of Greenfield  
Storm Water Utility  
Annual Budgets

Account Number	Appropriation	2008	2009	2010	2011
633100111	Salaries	\$138,000.00	\$62,787.00	\$86,000.00	\$87,500.00
633100115	Part-Time	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
633100116	Overtime	\$1,000.00	\$500.00	\$500.00	\$500.00
633100122	PERF	\$10,000.00	\$5,292.00	\$6,700.00	\$6,860.00
633100124	Employee	\$17,700.00	\$15,000.00	\$12,500.00	\$12,500.00
633100125	SS/Medicare	\$10,880.00	\$5,230.00	\$6,600.00	\$6,760.00
633100213	Misc. Supplies	\$4,000.00	\$2,500.00	\$2,000.00	\$2,500.00
633100311	Professional Services	\$30,000.00	\$30,000.00	\$150,000.00	\$150,000.00
633100312	Copies		\$5,000.00	\$15,000.00	\$15,000.00
633100322	Postage & Freight	\$13,000.00	\$1,000.00	\$5,000.00	\$5,000.00
633100323	Travel	\$500.00	\$500.00	\$500.00	\$500.00
633100324	Telephone	\$500.00	\$600.00	\$1,000.00	\$1,000.00
633100332	Pub Ads	\$4,000.00	\$2,500.00	\$2,500.00	\$2,500.00
633100361	Repairs			\$500.00	\$1,000.00
633100398	Subscriptions & Dues	\$500.00	\$700.00	\$700.00	\$1,500.00
633100410	Drainage	\$296,000.00	\$1,000,000.00	\$832,583.00	\$828,463.00
633100442	Equipment	\$13,000.00	\$9,000.00	\$15,000.00	\$15,000.00
633100443	Furniture & Fixtures	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
633100451	Loan	\$125,000.00	\$125,000.00	\$125,000.00	\$125,000.00
633100500	Non Appr	\$60,000.00	\$0.00	\$0.00	\$0.00
633100520	Storm Water Loan	\$0.00	\$0.00	\$0.00	\$0.00
		\$ 730,080.00	\$ 1,271,609.00	\$ 1,268,083.00	\$ 1,267,583.00

## **Recordkeeping for Annual Report**

Programmatic Indicators Summary - Greenfield, Indiana	Minimum Control Measures						July 1, 2010 - December 31, 2010	2011	January 1, 2012 - June 30, 2012
	Public Education and Outreach	Public Participation and Involvement	Illicit Discharge Detection and Elimination	Construction Site Runoff Control	Postconstruction Runoff Control	Pollution Prevention and Good Housekeeping			
1) Percentage of all citizens that have an awareness of storm water quality issues	X								
a) Percentage of residents that have an awareness of storm water quality issues	X								
b) Percentage of public service employees that have an awareness of storm water quality issues	X								
c) Percentage of commercial facility employees that have an awareness of storm water quality issues	X								
d) Percentage of industrial facility employees that have an awareness of storm water quality issues	X								
e) Percentage of construction site personnel that have an awareness of storm water quality issues.	X								
f) Percentage of visitors that have an awareness of storm water quality issues	X								
2) Number of meetings, training sessions, and events conducted to involve citizens	X								
3) Number of citizens that participate in storm water quality improvement projects		X							
4) Location of storm drains marked with decals			X				*		
a) Number of storm drains marked with decals			X						
5) Estimated linear feet of MS4 conveyances mapped			X						
a) Map of MS4 conveyances			X				*		
6) Number of MS4 area outfalls mapped			X						
a) Map of MS4 area outfalls			X				*		
7) Number of MS4 area outfalls screened for illicit discharges			X						
a) Map of outfalls screened for illicit discharge			X				*		
8) Number of illicit discharges detected			X						
9) Number of illicit discharges eliminated			X						
a) Location of illicit discharges detected and location of illicit discharges eliminated			X				*		
10) Number of local HHW collections		X				X			
a) Gallons of automobile fluids collected at HHW collections			X			X			
b) Gallons of lawn and garden chemicals collected at HHW collections			X			X			
c) Gallons of paints collected at HHW collections			X			X			

Programmatic Indicators Summary - Greenfield, Indiana	Minimum Control Measures						July 1, 2010 - December 31, 2010	2011	January 1, 2012 - June 30, 2012
	Public Education and Outreach	Public Participation and Involvement	Illicit Discharge Detection and Elimination	Construction Site Runoff Control	Postconstruction Runoff Control	Pollution Prevention and Good Housekeeping			
d) Items containing Mercury collected at HHW collections			X			X			
e) Gallons of household cleaners collected at HHW collections			X			X			
11) Number of citizen drop-off centers for automotive fluids						X			
a) Locations of drop-off centers for automotive fluids			X			X	*		
12) Number of citizens that participate in HHW collections		X							
13) Number of construction sites permitted for storm water quality				X					
14) Number of construction sites inspected				X					
15) Number of enforcement actions taken against construction site operators				X					
16) Number of public informational requests received related to construction sites		X		X					
a) Names and locations of constructions sites inquired about				X			*		
17) Number of structural BMPs installed				X	X				
a) Type and location of structural BMPs installed				X	X		*		
18) Number of structural BMPs inspected				X	X				
a) Type and location of structural BMPs inspected				X	X		*		
19) Number of structural BMPs maintained, or improved				X	X	X			
a) Type and location of structural BMPs maintained or improved				X	X	X	*		
20) Type and location of nonstructural BMPs utilized				X	X	X			
21) Estimated acreage or square footage of open space preserved and mapped				X	X	X			
22) Estimated acreage or square footage of mapped pervious and impervious surfaces				X	X	X			
23) Number of retail gasoline outlets and municipal/state/federal/institutional refueling areas with installed BMPs				X		X			
24) Number of entity facilities that have containment for accidental releases			X		X	X			
25) Estimated or actual acreage or square footage, amount, and location where pesticides and fertilizers are applied by a regulated MS4 entity to places where storm water can be exposed within the MS4 area.			X			X			
a) Amount of pesticides and fertilizers applied by the MS4 to areas with exposure to storm water			X			X			



**Measurable Goals Summary -- Greenfield, Indiana**

	Page in SWQMP	July 1, 2010 - December 31, 2010	2011	January 1, 2012 - June 30, 2012
<b>MCM 1 - Public Outreach and Education</b>				
1) Record the number of rain garden materials distributed	16			
2) Record the number of storm water materials distributed at the library and hospital	17			
3) One mailing of educational materials designed for commercial and industrial facilities will be distributed once during the five-year term of the storm water permit	18			
a) Document the number of businesses notified	18			
4) Record the number and type of storm water activities that the Hancock County SWCD conducts each year and the number of articles published. The goal is one educational activity, one newspaper article and one newsletter article each year.	19			
a) Document the number and type of educational activities.				
b) Document the number and title of newspaper articles.				
c) Document the number of newsletter articles.				
5) Increase the number of individuals reached through web site education	20			
a) Document the number of hits to the City of Greenfield Storm Water Department web page.	20			
b) Document the number of hits to the SWCD web page.	20			
c) Document the number of hits to the Hancock County Storm Water web page.	20			
6) Record the number of Hancock County MOA meetings that the MS4 attended	21			
7) Record the number of contractors, developers, or property owners that received erosion control educational information (based off of the number of building permits issued).	22			
8) Record the number and location of new storm sewer inlets installed containing a pre-stamped pollution prevention message	23			
<b>MCM 2 - Public Participation and Involvement</b>				
9) The stormwater public awareness survey will be conducted every 5 years.	25			
a) Average score of residents	25			
b) Average score of public service employees	25			
c) Average score of commercial facility employees	25			
d) Average score of industrial facility employees	25			
e) Average score of construction site personnel	25			
f) Average score of visitors	25			
10) Number of people attending SWCD and SWMD annual meetings	26			
11) Number of individuals attending Board of Public Works meetings	27			
12) Number of volunteers participating in community clean-up activities and County clean-up activities.	28			
a) Amount of trash collected from litter clean-up activities.	28			
13) Record the number of meetings, number of participants, and a listing of the Steering Committee Advisory Group meeting topics or activities completed.	29			
<b>MCM 3 - Illicit Discharge Detection and Elimination</b>				
14) Number of outfalls inspected for signs of illicit discharge.	35			
a) Number of investigations resulting in elimination of the pollution source.	35			
15) The Storm Water Hotline will be advertised on the City's storm water webpage.	38			
The number of complaints received by the storm water hotline sorted by type (See below).	38			
a) Flooding	38			
b) Erosion	38			
c) Water quality	38			

**Measurable Goals Summary -- Greenfield, Indiana**

	Page in SWQMP	July 1, 2010 - December 31, 2010	2011	January 1, 2012 - June 30, 2012
d) Dumping	38			
e) Construction Site	38			
f) Other	38			
16) Greenfield's storm sewer map will continue to be updated if new storm sewers, ditches, or outfalls are installed or identified. Report any mapping updates.	41			
17) Number of Hazardous Waste disposal opportunities advertised.	42			
Demonstrate an increase in the amount of waste collected at SWMD events, with amounts divided into the following categories:	42			
a) pounds of household hazardous waste	42			
b) gallons of paint	42			
c) pounds of trash	42			
d) pounds of electronics	42			
e) number of tires	42			
f) other	42			
18) Record the number of people participating in the Hazardous Waste Disposal opportunities.	42			
<b>MCM 4 - Construction Site Storm Water Runoff Control</b>				
19) Number of construction projects meeting the requirements of 327 IAC 15-5 (Rule 5) reviewed for SWPP and Erosion and Sediment Control measures.	46			
20) Education for SWPP and Erosion and Sediment Control Plans was made available to all developers.	46			
a) Record the number of building permits issued to projects greater than 1 acre in size (regulated by Rule 5)	46			
b) Record the number of hours dedicated to reviewing erosion and sediment control plans to demonstrate the amount of review time.	46			
21) Number of calls to the Construction Site Erosion Control Hotline recorded, investigated, and tracked.	52			
a) keep record of advertisement of the hotline.	52			
22) An initial and final erosion and sediment control inspection will be conducted for all building permits equal to or greater than 10,000 square feet.	53			
a) Number of construction sites inspected.	53			
23) Number of enforcement actions taken against construction site operators for sediment and erosion control concerns.	55			
a) Number of repeat offenders encouraged to attend erosion and sediment control training sessions.	55			
24) Number of MS4 reviewers and inspectors trained. Record the date of training.	56			
25) Number of high priority construction sites inspected	57			
26) All construction plans for municipally-owned projects greater than one acre were reviewed by the appropriate SWCD. Record the number of applicable projects.	58			
<b>MCM 5 - Post Construction Storm Water Run-off Control</b>				
27) Post construction BMP training was conducted for MS4 personnel responsible for plan review and inspection. Describe training.	60			
28) Number of privately owned BMPs inspected to ensure they are operating properly and are maintained by the owner.	63			
a) Date that structural BMPs were inspected. The goal is once per permit term.	63			
b) Description of recommendations for improvements to the BMPs made.	63			
<b>MCM 6 - Municipal Operations Pollution Prevention and Good Housekeeping</b>				
29) Date that municipal employees engaged in activities that could impact storm water received annual storm water pollution prevention training.	65			

**Measurable Goals Summary -- Greenfield, Indiana**

	Page in SWQMP	July 1, 2010 - December 31, 2010	2011	January 1, 2012 - June 30, 2012
30) Date that litter pick up was discussed with all Parks Department employees during annual storm water BMP training.	67			
31) Amount of debris collected from catch basin cleaning.	68			
32) Record the amount of debris collected from street sweeping.	69			
33) The City conducts annual heavy trash, Christmas tree, and leaf collection pick-up days. Report what days these events were held.	70			
a) Report the amount of heavy trash collected	70			
b) Report the number of Christmas trees collected				
c) Report the amount of leaves collected (cubic yards)				
d) Report the amount of compost distributed (cubic yards)				
34) Record the linear feet of stabilized roadside shoulders or ditches.	71			
a) Record the square feet of total area revegetated.	71			
35) Number of outfalls with scouring repaired.	72			
36) Record the amount of road salt applied to street surfaces.	73			
a) Date of annual training to reduce the amount of stored road salt exposed to storm water.	73			
37) Only grass covered snow disposal areas located away from receiving waters were used during excessive snow fall.	74			
a) Date of annual training session to ensure that the snow is only deposited in the designated location and not placed on an impervious surface.	74			
38) Date of annual inspections of chemical storage.	75			
39) Number of spill kits maintained in close proximity to chemical storage areas.	76			
40) Date annual refresher training for municipal employees was conducted on BMPs for Vehicle Maintenance and equipment washing.	77			
a) Vehicle maintenance was only conducted in garages with floor drains connected to the sanitary sewer and accessible spill response kits.	77			
41) Number of locations where municipal vehicle and equipment washing is conducted which do not discharge to receiving waters or to the storm sewer system.	78			
42) Document the number of acres where pesticides and fertilizers are applied by the MS4. Compare this to the total amount of municipally owned property.	79			
a) Document the total amount of fertilizers and pesticides applied each year. Spot applications of herbicides will not be recorded.	79			
b) Were there any change in the frequency of applying fertilizers and pesticides?	79			
43) Number of canine parks that are located within 150 feet of a receiving water and that are implementing pollution prevention practices.	80			
a) Document the number of new registrants for the park. This represents the number of individuals educated on proper pet disposal.	80			
44) Amount of hazardous waste properly disposed of by municipal operations	81			
45) Amount of materials recycled by municipal operations.	81			
46) Number of new, City-controlled flood management projects evaluated for water quality impacts.	82			