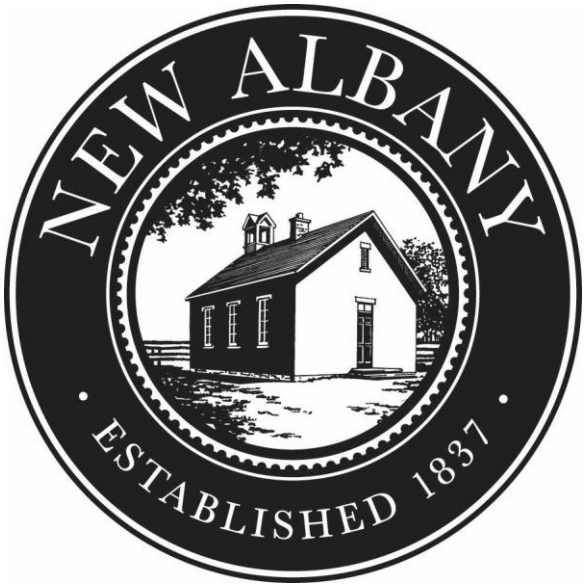
City of New Albany



STORMWATER MANAGEMENT PROGRAM 2015

TABLE OF CONTENTS

Executive Summary **4**
Introduction and Background **5**
1. Requirements 5
2. Development of the SWMP 5
3. Community Description 6
3. TMDL 6
4. Table of Organization 9
5. Definitions 10
The Plan **12**
1. Public Education and Outreach 12
A. Introduction 12
B. Decision Process 13
C. Best Management Practices 13
D. Themes 14
E. Responsible Party and Legal Authority 16
F. Goals and Activities 16
2. Public Participation/ Involvement 20
A. Introduction 20
B. Decision Process 20
C. Best Management Practices 20
D. Themes 21
E. Responsible Party and Legal Authority 21
F. Goals and Activities 21
3. Illicit Discharge Detection and Elimination 23
A. Introduction 23
B. MS4 System and HSTS Maps 24
C. Authorizing Legislation 24
D. Household Sewage Systems (HSTS) and Board of Health 25
E. Dry Weather Screening 25
4. Construction Site Stormwater Runoff Control 27
A. Introduction 27
B. Decision Process 28
C. Best Management Practices 28
D. Responsible Party and Legal Authority 29
5. Post-Construction Stormwater Management in New Development and Redevelopment 30
A. Introduction 30
B. Decision Process 31
C. Best Management Practices 31
D. Responsible Party and Legal Authority 32
6. Pollution Prevention and Good Housekeeping 34
A. Introduction 34
B. Decision Process 34
C. Best Management Practices 24
D. Facilities List 35
E. Responsible Party and Legal Authority 35

Executive Summary

The following document is a plan describing the City of New Albany's Stormwater Management Program (SWMP). The purpose of this program and plan is to comply with Ohio Environmental Protection Agency's (Ohio EPA) Municipal Stormwater Program administered through a National Pollution Discharge and Elimination System (NPDES) general permit.

This plan provides communications and guidance to City staff and elected officials, community partners, businesses and residents involved in implementing the stormwater program. The plan also provides information to Ohio EPA on how New Albany intends to comply with the Municipal Separate Storm Sewer System (MS4) NPDES Stormwater General Permit. Implementation is the responsibility of the City of New Albany. Franklin Soil and Water Conservation District and local consulting firms are providing assistance as outlined through contracts and an intergovernmental working agreement. This document will be updated periodically to reflect new opportunities, challenges, and comments and as part of completing the annual report due to the Ohio EPA on April 1st of each year. Public input, comment and support are welcome and necessary. Awareness, protection and improvement of our water and related natural resources are not only about complying with state regulations, but it is also about community pride and sustainability.

As directed by Ohio EPA, the Stormwater Management Program (SWMP) is tailored to individual community needs as an understanding of the community's resources, character, and natural resources is the starting point for activities listed in this plan. The plan is organized by the six minimum control measures (MCMs) that are set forth in the NPDES Phase II permit language. These MCMs are Public Education and Outreach, Public Participation/ Involvement, Illicit Discharge Detection and Elimination, Construction Site Stormwater Runoff Control, Post Construction Stormwater Management in New Development and Redevelopment, and Pollution Prevention/Good Housekeeping for Municipal Operations. The MCMs provide a comprehensive stormwater management approach from educating and involving the users of the storm sewer system; mapping the stormwater system including outfalls into the system; identifying and resolving pollution discharges into the system; managing and improving stormwater quantity and quality entering into the system on new and redeveloping construction sites; ensuring ongoing maintenance of all stormwater management systems after construction and implementation; and setting the community example with good stormwater management at municipal facilities and with municipal operations.

While implementing this plan the City of New Albany plans to communicate with businesses and households and reach out to special populations that include: students, developers, commercial sites, stream side landowners and watershed groups. To comply with minimum requirements of the permit, the City of New Albany will continue to review and update zoning and development regulations as needed. The City will also continue to develop programs to address concerns noted in the Big Walnut Creek TMDL, and to identify potential pollution sources and eliminate those sources. There will be opportunities to address erosion concerns along stream banks, implement demonstration of rain barrels and rain gardens, provide informational workshops to businesses and residents interested in green practices, improve appearance and functionality of detention basins, and increase tree canopy cover in the City. Every effort will be made to use existing resources, identify grant opportunities, and meet multiple community needs.

Introduction and Background

1. Requirements

The City of New Albany is required to develop, implement and support a Stormwater Management Program (SWMP) to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of Ohio Revised Code (ORC) 6111 and the Clean Water Act. The SWMP should include management practices, control techniques, and system, design, and engineering methods. The plan should be reviewed, modified and updated to include provisions as Ohio EPA and/or City of New Albany staff determines appropriate after program reviews for effective stormwater quality management.

Requirements for the SWMP are regulated by the Ohio EPA through the National Pollutant Discharge Elimination System (NPDES) general permit for Small Municipal Separate Storm Sewer Systems (MS4). The permit requirements address six minimum measures: Public Education and Outreach, Public Participation/ Involvement, Illicit Discharge Detection and Elimination, Construction Site Stormwater Runoff Control, Post Construction Stormwater Management in New Development and Redevelopment, and Pollution Prevention/Good Housekeeping for Municipal Operations. The SWMP shall include best management practices (BMPs) for each minimum measure. BMP is a broad term that refers to practices ranging from educational brochures to actual implementation practices. Identified BMPs shall include statements as to legal authority and rationale as to how and why selected. A table of organization identifies the primary point of contact and responsible parties for each BMP.

The full text of the permit and other guidance documents can be viewed over the Internet at http://epa.ohio.gov/dsw/storm/index.aspx or by calling Jason Fyffe at (614) 728-1793.

2. Development of the SWMP

The City of New Albany has been implementing a Stormwater Management Program for MS4 NPDES Stormwater Permit during the first generation of this new permit program. The text of the program plan has been lost. Even so, the City has been submitting annual reports to the OEPA reflecting attention to the MCMs and BMPs required by the NPDES permit. In order to gain a better understanding of stormwater program management under the new permit requirements put a Stormwater Management Program into writing, an initial meeting was held with the program stakeholders in 2015: Bernadette Macchi (N.A., Public Services Department), Aaron Noblet (N.A. Public Services Department), John Ubbing (E.P. Ferris), Jennifer Ponchak (Follow the River), Stephen Mayer (N.A.), Jay Herskowitz (E.P. Ferris), Deb Mecozzi (N.A. City Manager's Office), Michael Barker (N.A.), Jennifer Fish (Franklin Soil and Water Conservation District), Josh Garver, (FSWCD), and Kurt Keljo, (FSWCD). This meeting provided direction to the overall process of developing the SWMP.

The City of New Albany and Franklin Soil and Water Conservation District staff partnered to research community needs, permit requirements, and effective options for a stormwater management plan outside of formal meetings. The results of staff research and meetings provided the substance for the SWMP.

3. Community Description

The City of New Albany is comprised of an estimated 8,391 residents.[1] The City of New Albany encompasses 7752 acres of land. According to New Albany's 2006 Land Use Strategy, the City anticipates approximately 7200 acres of urban/ suburban residential use, 2206 acres of office/mixed use commercial/research and informational/retail use, 328 acres of mixed use and a 674 acre City center.[3] New Albany maintains a total 30 miles of recreational trails and over 200 acres of parkland. The City has approximately 92 miles of storm sewer lines in Franklin and Licking County.[4] There are approximately 144 discharging Household Sewage Treatment Systems in New Albany.

Natural Features

New Albany contains approximately 38 miles of streams (based on Franklin Soil and Water GIS data) within the Rocky Fork and Blacklick watersheds.[2] Based on the SSURGO Soils GIS layer, 51% of the soils in New Albany in Franklin County are Bennington, 28% are Pewamo, and 15% are Cardington. The addition of Shoals, Sloan and Condit soils accounts for 99% of New Albany's soils. According to the OEPA's National Wetland Inventory Wetlands with OEPA attributes GIS layer, there are approximately 51 acres of wetlands in the City.[4]

Watersheds

The City of New Albany is located in the "Blacklick Creek-Big Walnut Creek" watershed (HUC: 0506000115). The majority of the City (~70%) is in the "Rocky Fork Creek" subwatershed (HUC: 050600011501). Most of the remainder (~30%) is in the "Headwaters Blacklick Creek" subwatershed (050600011503).[5] The "Rocky Fork Creek" and "Headwaters Blacklick Creek" subwatersheds extend up into Delaware County and the latter spreads eastward into Licking County where the primary land use in the headwater streams is agriculture and rural residential.

[1] Mid-Ohio Regional Planning Commission estimate.
[2] Source: National Hydrography Dataset GIS layer
[3] City of New Albany website, http://www.newalbanyohio.org/wp-content/uploads/2012/02/Land-Use-Strategy.pdf, Accessed 29 September 2015.
[4] Source: Franklin Soil and Water GIS map layer
[5] Source: GIS layers from Franklin County Auditor's Office; 2010 and USDA-NRCS National Cartography & Geospatial Center (NCGC).

3. TMDL

Background
A Total Maximum Daily Load (TMDL) was developed by Ohio EPA and approved by USEPA in 2005. Watershed Action Plans for Lower Big Walnut (December 2006), Rocky Fork (June 2009), and Blacklick Creek (June 2010) were developed with community support and input with a focus on addressing needs stated in the TMDL report. City of New Albany's support of this effort was important because watersheds extend across municipal boundaries and that communities need to come together to effectively bring about improvements in water quality and quantity in these watersheds.

Ohio EPA water quality program consists of a suite of rules and study's designed to classify water quality in streams and identify priorities for impaired streams. Water quality designations include Warmwater Habitat, Modified Warmwater Habitat, and Exceptional Warmwater Habitat. For a full explanation of water quality designations visit: http://www.epa.ohio.gov/dsw/wqs/index.aspx.

Ohio EPA is required to identify impaired streams through the states 303(d) list. Total Maximum Daily Load (TMDL) studies are conducted on impaired streams to identify causes of impairment and set load limits that need to be met through permit and voluntary programs. For more information regarding the 303(d) list and TMDL program visit: http://www.epa.ohio.gov/dsw/tmdl/index.aspx.

Results
In 2000 as part of a TMDL study, the OEPA sampled one site downstream of Thompson Rd. on Rocky Fork Creek that was affected by New Albany, on the boundary of the City and downstream from the two major tributaries most impacted by the City. The site was identified as in non-attainment of water quality standards based on the biological communities present. Expected to meet the standards for Warmwater Habitat, the water quality at this site was assessed as fair.

Sites in or bordering New Albany on Sugar Run and Rose Run were also sampled in 2000. While the Sugar Run site met Warmwater Habitat criteria, the Rose Run site did not. The OEPA attributed the non-attainment of Rose Run and Rocky Fork Creek to the impacts of land development and failing sewage systems—both home sewage treatment systems (HSTSs) and small package plants. Land development was mentioned as having had particular impact on Sugar Run and Rose Run.

Blacklick Creek was sampled in 2000 at one location in New Albany (Old 161) and one not far downstream from the City at Morse Rd. Both sites were found to be in non-attainment. Failing HSTSs and a manure spill were identified as impacting aquatic life in the upper reaches of the stream. Elevated levels of PAHs were also found in sediment samples taken at Morse Rd.

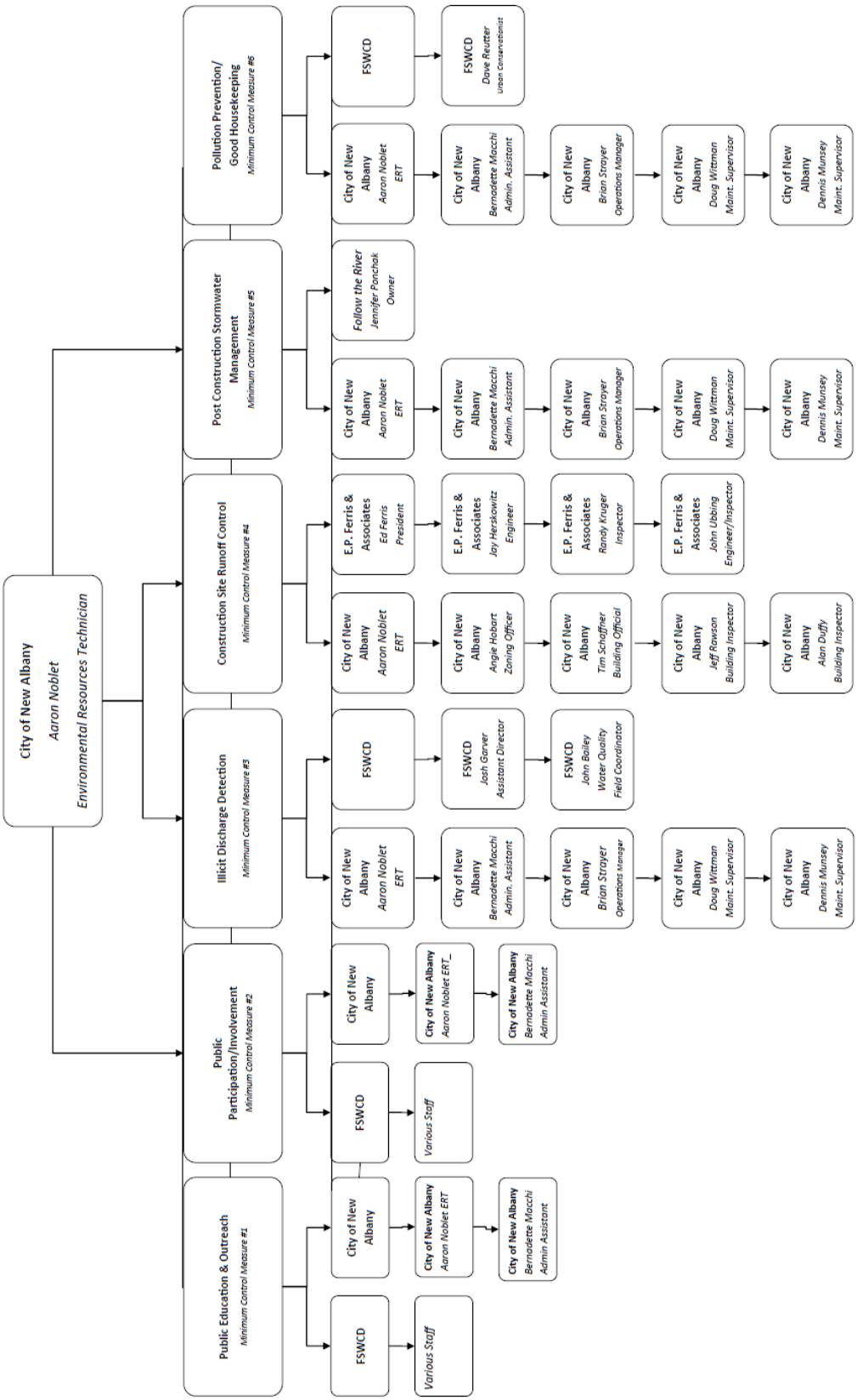
TMDL Targets
TMDL targets were set for the Rocky Fork and Blacklick watershed for pathogens and nutrients, and QHEI target was established for Rose Run. A target for ammonia was also set for Blacklick, upstream from New Albany. A 77% reduction in *E. coli* levels discharged to the stream by

failing HSTSs was established as the target for Rocky Fork, while a 78% reduction was set for the Headwaters of Blacklick Creek. A 62% reduction in total phosphorus discharged from failing HSTSs was put in place for both Rocky Fork and Blacklick creeks. An 8.2% improvement in the QHEI score is the habitat goal for Rose Run.

Past Actions Related to TMDL

New Albany developed a Rose Run Greenway Corridor Plan in 2003. Two restoration projects on Rose Run from this plan have been implemented since the TMDL study was done. A Village Center Stormwater Mitigation Strategy was presented in 2010. One of the strategies in that document in that document is a Rose Run restoration project, which is in process. One of the other mitigation strategies affecting Rose Run, the Third Street Green Street pilot project, has also been implemented. These projects likely have accomplished the targeted 8.2% improvement in QHEI score from the TMDL.

4. Table of Organization



5. Definitions

Best Management Practice (BMP): The most effective, practical methods for the prevention or reduction of pollution from non-point sources (e.g. urban pollutant runoff). Stormwater best management practices include a structural or non-structural methods designed to temporarily treat or store stormwater runoff to reduce pollution and mitigate flooding.

Home Sewage Treatment System (HSTS): As defined in the Ohio Administrative Code, Chapter 3701-29, a HSTS is any onsite sewage disposal or treatment system for a single-family, two-family, or three-family dwelling that serves as a collection point for sewage.

Hydrologic Unit Code (HUC): A two to twelve digit code in the hydrologic unit system that is used to identify all the drainage basins within the United States. The HUC is based on the four levels of classification in the hydrologic unit system: regions (largest), sub-regions, accounting units, and cataloging units (smallest).

Illicit Discharge Detection and Elimination (IDDE): One of the six minimum control measures that is required to be included in the stormwater management program of an operator of a Phase II regulated small municipal separate storm sewer system in order to obtain its National Pollutant Discharge Elimination System permit.

Maximum Extent Practicable (MEP): Although not directly defined by US EPA, this term refers requiring compliance with regulation requirements to the maximum ability of the permittee.

Minimum Control Measure (MCM): One of six technical areas in a stormwater management program (SWMP) of the NPDES Phase II regulations. These six technical areas are: (1) Public Education and Outreach, (2) Public Participation/Involvement, (3) Illicit Discharge Detection and Elimination, (4) Construction Site Runoff Control, (5) Post-Construction Runoff Control and (6) Pollution Prevention/Good Housekeeping.

National Pollutant Discharge Elimination System (NPDES): Federally mandated permit system established by Section 402 of the Clean Water Act, used in the regulation of point sources (e.g. discharges from industrial and municipal facilities, stormwater discharges from discrete conveyances such as pipes or channels).

Ohio Revised Code (ORC): Legal document containing all of the acts that have been passed by the Ohio General Assembly and that have been signed by the Ohio governor.

Qualitative Habitat Evaluation Index (QHEI): Index designed by the Ohio EPA to establish a measurement of habitat quality that is generally interrelated to physical factors that affect fish communities and other aquatic life, such as macroinvertebrates.

Stormwater Management Program (SWMP): The SWMP is organized by MCMs and includes BMPs, measurable goals, rationale, decision process, responsible parties, time schedules and other appropriate information.

Stormwater Pollution Prevention Plan (SWPPP): A SWPPP identifies all potential pollution sources from a construction site or regulated facility; addresses measures to prevent potential pollutant discharges into water bodies and wetlands; and assists in the compliance with the conditions and terms of the permit.

Total Maximum Daily Loads (TMDL): The Ohio EPA TMDL program, established under Section 303(d) of the Clean Water Act (33 U.S.C. 1313), focuses on identifying and restoring polluted rivers, streams, lakes and other surface water bodies. A TMDL is a written, quantitative assessment of water quality problems in a water body and contributing sources of pollution. It specifies the amount a pollutant needs to be reduced to meet water quality standards (WQS), allocates pollutant load reductions, and provides the basis for taking actions needed to restore a water body.[1]

[1] Ohio EPA website: http://www.epa.ohio.gov/dsw/tmdl/index.aspx#Ohio's TMDL Process

The Plan

This Stormwater Management Program is organized by Minimum Control Measures (MCMs). The SWMP includes best management practices, measurable goals, rationale, decision process, responsible parties, time schedules and other appropriate information. This section is designed to correspond with Ohio EPA annual reporting requirements. This plan can be updated annually and used as a tool to complete required annual reporting.

1. Public Education and Outreach

A. Introduction

The first minimum control measures requires the City to distribute educational materials or conduct equivalent outreach activities to the community about the impacts of stormwater discharges and steps the public can take to reduce pollutants to water bodies. An informed and knowledgeable community is important to a successful stormwater program. This lays the foundation for community participation in responsible land management, compliance with local and state regulations, and support for community projects and programs needed for a successful stormwater program.

Benefits to the City include a successful stormwater program, pride in the community, and support of the City of New Albany's self-description as a community that exercises "thoughtful, innovative planning and attention to detail in all aspects of daily living."

Summarized Requirements:

- Develop a plan to inform and involve individuals and households about steps they can take to reduce stormwater pollution including measurable goals, target audiences, target pollutants, outreach strategy, and input to the development of the SWMP.
- Develop five different stormwater themes or messages to be conveyed to target audiences during the permit term. The Development community will be the target audience for one theme or message.
- Develop rationale for target audiences and pollutants that will make the greatest difference for improving stormwater quality.
- Identify approaches and mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) to reach target audiences, and how many people will be reached over the permit term. At least 50 percent of the population needs to be reached over the permit term.
- Evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

B. Decision Process

To address this minimum control measure the City has implemented a public education and outreach program that utilizes a comprehensive approach to maximize the effectiveness of education and outreach to inform the public and encourage changes in attitude and behavior. The program targets the development community, individuals, households, businesses, and students K-12. Existing educational programs provide a foundation for this community-wide plan. Any interest groups in the community that can play a role in the stormwater management planning and implementation process are identified during planning meetings. These groups are engaged in the outreach, education and involvement processes.

When selecting BMPs and themes for this minimum measure community, demographics, land use, potential pollution sources, existing water quality and stormwater system information, and community resources were considered.

C. Best Management Practices

The following BMPs are used for public education and outreach to inform individuals and groups about the steps they can take to reduce stormwater pollution:

- Communicate through print media.
    - Include relevant articles and announcements in local newspapers and print newsletters.
    - Provide fact sheets on such things as HSTS maintenance to affected residents.
    - Encourage businesses and residents to access website resources.
- Publicize and communicate using Internet-based resources
    - Continue and update the stormwater page on City of New Albany's website,
    - Include relevant articles and announcements in City's e-newsletter and FSWCD online newsletters.
    - Communicate information as appropriate in council newsletter, and on Facebook, Twitter, Instagram and Nextdoor.
    - Provide links to stormwater-related websites, including the FSWCD website
- Provide stormwater education resources to teachers through the *Soil and Water Information for Teachers Newsletter.*
- Provide stormwater education.
- Provide stormwater information at New Albany-sponsored events.
- Communicate stormwater information and announcements to City Council and elected officials.
- Publicize and support annual Central Ohio Stormwater and Erosion Control Expo.
- Provide all permit applicants with information on sediment and stormwater control BMPs and New Albany's expectations.
- Hold pre-construction meetings with all developers.
- Provide all developers working within New Albany copies of *The Urban Review: Stormwater and Erosion Control Newsletter* which contains up-to-date stormwater permit and BMP technology information.

D. Themes

The City of New Albany has identified at least five different education themes to use during the duration of this permit. The themes target the primary existing causes of creek impairment in New Albany as identified in the TMDL as introduced above in the community description. Target audiences are chosen on the basis of the probable sources in New Albany of the pollutants causing this impairment. Restaurants and businesses with parking lots will receive information relevant to parking lot runoff and the impact of activities undertaken on parking lots on runoff (e.g. car washing, power washing of restaurant equipment, automobile fluid leaks etc.). The development community will receive information on sediment controls, stormwater BMPs, and OEPA expectations. Facts on HSTS maintenance will be provided to landowners with HSTS systems. Homeowners will be provided information on the ways that they can reduce their impacts on stormwater quality and volume.

These educational themes can be summarized as follows:

"Reduce and clean stormwater runoff with a focus on using trees"

Rationale – When stormwater does not runoff, it cannot carry pollution to the stream. It also does not contribute to the increases to stream flow that accompany rain events and are otherwise exacerbated by stormwater runoff. The magnified stream flows erode stream beds and banks add to suspended sediment which carries phosphorus with it. The sediment itself is an issue and has contributed to the impairment of Rose Run and impacted Sugar run as well. Trees make an important contribution to reducing runoff and can contribute to cleaning that runoff as well.

New Albany values its trees and has incorporated tree protection and planting standards into all of its development regulations. The USEPA recommends that trees be incorporated into cities' stormwater practices ("Stormwater to Street Trees: Engineering Urban Forests for Stormwater Management" - http://water.epa.gov/polwaste/green/upload/stormwater2streettrees.pdf). Trees can reduce runoff 2-7% (http://www.fs.fed.us/psw/programs/uesd/uep/products/11/800TreeCityUSABulletin_55.pdf). Most importantly, studies have demonstrated that trees remove nutrients (http://www.deeproot.com/blog/blog-entries/the-role-of-trees-and-plants-in-bioretention-2). The Charles River Watershed Association reports that tree pits removed as much as 75% of the total phosphorus from stormwater runoff (http://www.crwa.org/hs-fs/hub/311892/file-640261436-pdf/Our_Work_/Blue_Cities_Initiative/Resources/Stormwater_BMPs/CRWA_Tree_Pit.pdf). Inasmuch as phosphorus level reduction is a priority in the TMDL for both watersheds affected by New Albany, wedding the City's commitment to the value of trees with the ability of trees to remove phosphorus from stormwater runoff is a natural fit.

"Improving stormwater runoff through lawn care practices"

Rationale – While trees are valuable in removing phosphorus and other pollutants from stormwater, leaves can put some of the phosphorus in particular back into the water. Similarly,

lawn waste can contribute to the nutrient load of streams, not to mention its impact on organic matter in creeks increasing biological oxygen demand (BOD). Riparian vegetation ought to be sufficient to supply the organic inputs required to maintain stream health. Keeping yard waste out of stormwater is an important dimension of keeping nutrients out of our streams.

New Albany has large lots with considerable areas of mowed lawns, as well as acres of parks used for sports and miles of maintained recreation trails. Lawn maintenance is a component of public and private life in the City, an element that often involves fertilizer. Again, while failing HSTSs are identified as the primary source of nutrients that needs to be addressed in New Albany's watersheds, reducing nutrient runoff due to fertilizer will complement work on improving the water quality of HSTS effluent. This would involve applying the proper fertilizer at the appropriate rate and the right time, using methods intended to prevent fertilizer from entering stormwater runoff.

"Keep pet and animal waste from polluting our streams"

Rationale – Studies from Seattle found that dog waste in particular contributes nearly 20% of the bacteria load in stormwater samples (http://www.epa.gov/safewater/sourcewater/pubs/fs_swpp_petwaste.pdf). New Albany's commitment to dogs is reflected in the significant financial support it provided to the Rocky Fork Metro Park dog park area. Pathogens were identified by the TMDL as the second major problem that needs to be addressed to improve water quality in Blacklick and Rocky Fork creeks. While bacteria levels from failing HSTSs is cited as the primary target for reduction, cutting down on bacteria loading from pet waste can only enhance efforts to remediate failing HSTSs.

"Recognize and report illegal discharges"

Rationale – Identification of failing HSTSs and other sources of pollutants to our streams often depends on the attentiveness of residents and city employees. Residents may also be unaware of the pollution they cause through their management of yard waste, fertilizer, soap, paint etc. By way of another example, elevated PAHs have been identified in the sediment of both Rocky Fork and Blacklick creek. Certain asphalt sealants, especially when misapplied, have been demonstrated to contribute PAHs to stormwater runoff. Educating residents and businesses about illegal discharges and the way to report these discharges will clearly help reduce the bacteria and phosphorus loads going to the creeks, as well as other pollutants that have impacted the city's waterways.

"Installing and maintaining proper stormwater management controls on development sites"

Rationale – The OEPA's TMDL and TSD reports indicate that development in New Albany has contributed to siltation in both Sugar Run and Rose Run. The failure to maintain proper sediment controls on construction sites can be a major direct contributor of silt to our streams. There is considerable development occurring and projected for the City. Seeing that construction sites are appropriately managed so as to minimize the sediment that leaves those sites will be a critical component of protecting the streams those sites impact.

E. Responsible Party and Legal Authority

The Municipal Engineer is responsible for the overall management and implementation of the stormwater public education and outreach program. Franklin Soil and Water Conservation District provides assistance with educational materials and presentations. Planned activities are well within the authority and ability of the City of New Albany in partnership with Franklin Soil and Water Conservation District. Parks and Recreation will incorporate stormwater into existing programs and practices.

F. Goals and Activities

BMP #1 – Rain Barrel/Rain Garden/Backyard Conservation Workshops
Hold at 5 rain barrel/rain garden/backyard conservation workshops in New Albany during the permit term. The workshops will focus on runoff reduction and cleaning stormwater (**Theme 1**) using rain barrels and rain gardens. However, proper lawn care practices (**Theme 2**), appropriate pet and animal waste management (**Theme 3**), and illegal discharge recognition will be components of at least 3 of the workshops.

Rationale – New Albany has a tradition of hosting these workshops with good response from residents. Workshops provide a more intensive educational opportunity than to other modes of message delivery and have had a good message/action connection in the past.

Parties Responsible to Implement – New Albany Public Service Department will do scheduling and marketing. Franklin Soil and Water Conservation District will assist with marketing and lead the workshop.

Measurable Results – Residents will purchase approximately 30 rain barrels and install on the order of 5 rain gardens during the permit term. Roughly 60 residents will have participated in the workshops during the permit term.

BMP #2 – Information Provided to the Development Community
Franklin Soil and Water produces a newsletter that is distributed to over 1100 developers, engineers and other stormwater professionals. During the permit term, this newsletter will address using trees for stormwater management in new developments (**Theme 1**), appropriate landscaping management (**Theme 2**) and new developments in erosion and sediment control (**Theme 5**).

Rationale – The newsletter is an established vehicle for reaching the development community and stormwater professionals. It has a brought audience and provides information on conferences and workshops, in addition to the general information on appropriate stormwater management.

Parties Responsible to Implement – Franklin Soil and Water Conservation District will produce and distribute the newsletter.

Measurable Results – A survey of newsletter recipients (either all of them or a randomly selected sample) will be distributed at least once during the permit term. Results will indicate that approximately 20% of the readership had learned something relevant to the SWMP themes

from the newsletter and on the order of 5 examples of practices recommended in the newsletter related to the SWMP themes will have been implemented in New Albany during the permit term.

BMP #3 – Educational Material Distributed to Residents
Provide the Franklin Soil and Water newsletter annually to at least 200 residents of New Albany via print and e-mail. Send e-newsletters that feature stormwater related articles annually to at least 1000 residents. Include information on reducing and cleaning runoff (**Theme 1**), proper lawn care (**Theme 2**), appropriate pet and animal waste management (**Theme 3**) and recognizing and reporting illegal discharges (**Theme 4**) at least once during the permit term.

Rationale – These are established means for reaching New Albany residents.

Parties Responsible to Implement – New Albany Public Service Department will develop and send the e-mail blasts. Franklin Soil and Water Conservation District will assist with information for the e-mail blasts, and produce and distribute its newsletter.

Measurable Results – Approximately 40 New Albany residents will purchase on the order of 100 trees from the Franklin Soil and Water tree sale during the permit term. Identified cases of problem lawn waste management (e.g. leaves raked into the street gutter) will be reduced by roughly 30% during the permit term. At least 30 New Albany residents will sign a pledge to properly manage pet and animal waste. Residents will report at least 5 illegal discharges during the permit term.

BMP #4 – Media Outreach
At least 3 stormwater-related articles, radio segments and/or TV spots will appear in the newspaper distributed to New Albany residents, local radio and/or local TV on 2 of the first 4 stormwater themes.

Rationale – Newspapers, radio and TV remain a useful way for disseminating general information and announcing events.

Parties Responsible to Implement – New Albany Public Service Department and Franklin Soil and Water Conservation District will assist collaborate in reaching out to local media outlets.

Measurable Results – A random survey of residents will indicate that on the order of 100 residents learned something related to the SWMP themes through this media outreach.

BMP #5 – Stormwater Webpage
A stormwater webpage will be maintained on the New Albany website, providing information on all five of the SWMP themes.

Rationale – Webpages provide a good resource for residents looking for information related to the City and issues of concern.

Parties Responsible to Implement – New Albany Public Service Department will maintain the website.

Measurable Results – 40 residents will attend a stormwater-related event, take advantage of stormwater-related program and/or report an illegal discharge as a result of using the webpage.

BMP #6– Implement a Program for Residents to Promote Reducing and Cleaning Stormwater Runoff using Rain Barrels, Rain Gardens and Trees

Design and implement a community-wide program, promoting practices related to **Theme 1** in particular. As components of the program, the City will undertake a street tree inventory and establish an area designed as an arboretum. Both projects will make information available to the public regarding the stormwater benefits of trees.

Rationale – General information can be provided to residents and others via the Internet, print or other media. The number of people actually learning from that information is generally low. Workshops provide more learning than simple information distribution but are limited as to the number of people that can be engaged. This program will be designed to reach out to the entire City in an intentional, carefully designed, effective manner.

Parties Responsible to Implement – New Albany Public Service Department will complete the street tree inventory and arboretum establishment, market and implement the larger program in conjunction with Franklin Soil and Water. The Conservation District will work on the design of the program with PSD, assist with marketing and implement it in conjunction with PSD.

Measurable Results – Random sampling will indicate that at least half of the residents in the City were aware of this program and its message. Approximately 100 residents will plant a tree during the permit term as a result of this program.

BMP #7 – Contact the Business Community Regarding the Water Quality Partner Program

Water Partner program information will be distributed to business owners via e-mail, mail and/or one-on-one interaction. Business owners will be asked to sign a Water Quality Partner pledge related to stormwater pollution prevention including appropriate landscape practices (**Theme 2**) and eliminating illegal discharges (**Theme 4**).

Rationale – The business community commonly maintains a significant amount of green space and has the potential for producing illegal discharges on a larger scale than individual residents.

Parties Responsible to Implement – The Franklin Soil and Water will distribute the program information in consultation with New Albany PSD.

Measurable Results – On the order of 10% of the businesses in New Albany will have signed up as Water Quality Partners.

BMP #8 – Implement a Pet Waste Disposal Program on a Leisure Trail (Theme 3)

Stations providing pet waste bags and cans designated for disposing pet waste will be installed in along a leisure trail. The program will be designed to remind the public of the importance of pest waste disposal, while making it as easy as possible for pet owners to dispose of pet waste when walking on the trail.

Rationale – Leisure trails are common locations for residents to walk their pets. It is easier to forget the bags needed to pick up pet waste when in a public location than when it is close to home. Residents tend to be more attentive to pet waste on their own properties than they are in public locations.

Parties Responsible to Implement – New Albany Joint Parks District in conjunction with the Public Service Department will develop and install the necessary signage and stations in the park.

Measurable Results – Spot surveys of the leisure trail will indicate approximately a 30% reduction in improper pet waste disposal.

BMP #9 – Distribute a Newsletter Featuring Stormwater Information to New Albany Teachers

The SWIFT newsletter produced for educators by Franklin Soil and Water Conservation District will be distributed to teachers in New Albany. The newsletter will cover SWMP **Themes 1 through 5** at least once during the permit term.

Rationale – Teachers play an important role in reaching the community through children and teens, while educating the next generation as well. The SWIFT newsletter is an established means for reaching that audience.

Parties Responsible to Implement – Franklin Soil and Water will produce and distribute the newsletter.

Measurable Results – Approximately 7 New Albany teachers and/or students will participate in workshops and events, and/or take advantage of the resources announced in the newsletter during the permit term.

BMP #10 – Send Aerator Treatment Unit Maintenance Information to ATU Owners in New Albany

Franklin County Public Health sends maintenance tips to ATU owners with their annual applications for an operational permit. All ATU owners in New Albany receive one (~131 people).

Rationale – Failing home sewage treatment systems (HSTSs) have been identified as a major problem in the Rocky Fork and Blacklick watersheds. Aerators (ATUs) are the primary units to fail. Franklin County Public Health provides a vehicle for providing homeowners with ATUs information on regular basis regarding maintaining their ATUs, so as to minimize illegal discharges from these units (**Theme 4**).

Parties Responsible to Implement – Franklin County Public Health produces and distributes the information.

Measurable Results – Approximately 5 ATU owners will use this information to help maintain their systems.

2. Public Participation/ Involvement

A. Introduction

This minimum measure requires the City of New Albany to engage the public for input and involvement in the City SWMP. Public participation provides valuable input and assistance for the SWMP with opportunities to engage in the development and implementation of the program. Public involvement results in broader public support, improvements to the program plan and implementation, shorter implementation schedules, additional resources and greater benefits to water quality in the City and watershed wide.

Benefits to the City include identification of resources and opportunities outside of existing City operations. Participation also enhances community engagement and pride.

Summarized Requirements:

- Describe public involvement opportunities in developing and implementing your stormwater management plan.
- Describe target audiences for public involvement including ethnic, economic groups, and stakeholder groups.
- Describe public involvement activities with a minimum of five public involvement activities over the permit term.
- Evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

B. Decision Process

To address this MCM the City has engaged in a SWMP planning process that allows for community participation. Stakeholders include residents, businesses, and community groups. Input received will assist in further developing activities and targets as reported to Ohio EPA in the 2014 annual report and 2015 annual plan. Providing this opportunity for public input complied with Ohio public notice and open records law. This was also an opportunity to educate the public about existing stormwater management opportunities and the SWMP.

A. Best Management Practices

The following BMPs are used for public involvement/ participation.

- Provide opportunity for and consideration of public input into stormwater management plan.
    - Make the plan available for public comment on the City website (http://www.NewAlbany.gov/).

- Involve the public in implementing the stormwater program and improving the stormwater system.
    - Maintain a partnership with the Franklin Soil and Water Conservation District for stormwater program management support.

        - Provide guidance and education to property owners with significant natural resource, soil erosion, or drainage concerns.
        - Develop a Backyard Conservation program including an annual workshop, brochures, and educational materials for interested residents focusing on NPDES Phase II requirements.
    - Advertise location of SWACO's HHW drop-off
    - Conduct stream clean-ups.
    - Publicize City-initiated stormwater projects, as well as opportunities for resident-based stormwater projects.
    - Publicize existing system for public complaints, developing a special category for stormwater issues.
- Support existing watershed protection efforts that complement and support the City SWMP.
    - Publicize and support attendance at annual the Central Ohio Stormwater Expo.

D. Themes

The City of New Albany will address all 5 different education themes identified above during the duration of this permit. The themes target existing and potential community pollution sources.

E. Responsible Party and Legal Authority

The Municipal Engineer is responsible for the overall management and implementation of the stormwater public involvement/ participation minimum control measure. Franklin Soil and Water Conservation District provides assistance with educational materials and presentations.

These activities are well within the authority and ability of the City of New Albany in partnership with Franklin Soil and Water. No additional regulation development is required.

F. Goals and Activities

BMP #1 – Hold at Least One Tree Planting Event Along a Stream in the Blacklick and/or Rocky Fork watershed(s)
One or more tree planting events will be held along a stream in one of the two watersheds affected by New Albany. The event will be publicized via e-mail blasts and the New Albany website, with a press release to the local paper. The event will be designed as a family-friendly activity for City residents.

Rationale – Trees play an important role in maintaining the function of riparian corridors. They reduce stormwater and clean stormwater runoff (**Theme 1**).

Parties Responsible to Implement – New Albany Public Service Department will distribute the information. The Franklin Soil and Water will develop the educational material in consultation with New Albany PSD.

Measurable Results – 500 trees will be planted along one or more streams in the Blacklick, Rose Run and/or Rocky Fork watershed(s) during the permit term.

BMP #2 – Hold at Least One Storm Drain Labeling Event
An event will be held to place storm drain labels on catch basins in at least one New Albany neighborhood. Youth organizations (e.g. Boy Scouts) will be the target audience for this activity.

Rationale – People often do not realize that what goes into our storm drains goes into our creeks. The labels are intended to help raise that awareness and decrease the improper disposal of lawn waste (**Theme 2**), while helping people recognize activities that would result in an illegal discharge (**Theme 4**).

Parties Responsible to Implement – New Albany Public Service Department will organize and provide the materials for the event.

Measurable Results – Storm drains will be labelled in at least one neighborhood that currently has no drain labels (at least 15 new labelled catch basins).

BMP #3 – Host at Least Two Creek Clean-ups
There will be at least two creek clean-ups held in New Albany, providing information to participants on proper lawn care practices (**Theme 2**) and illegal discharges (**Theme 3**).

Rationale – Creek clean-ups are an effective way to get residents into the streams and increase appreciation for our water resources. It also can increase participant's sense of pride in and ownership of our creeks, providing a foundation for other actions that protect and improve water quality in our waterways. Trash removal can also improve habitat, especially when refuse like old carpets and plastic bags has covered up substrate. Habitat improvement was identified as a goal for Rose Run in the TMDL (although we believe that New Albany has met the targets set for this parameter by implementing several creek restoration projects).

Parties Responsible to Implement – The PSD will monitor the scheduling and implementation of these events.

Measurable Results – At least five large garbage bags of trash will be removed from a creek.

BMP #4 – Host at Least One Streamside Buffer Installation Event Using Trees and/or Other Native Vegetation
There will be at least one event where a landscaped buffer will be planted in the Blacklick and/or Rocky Fork watershed(s). A special effort will be made to engage streamside landowners in the event.

Rationale – Buffers clean the stormwater both entering and already flowing in our streams (**Theme 1**). Residents commonly perceive buffers as messy and unkempt, while having limited understanding of their value.

Parties Responsible to Implement – New Albany Public Service Department will work with Franklin Soil and Water to plan, publicize and implement the event.

Measurable Results – One 25’ landscaped creek buffer will be planted in the Blacklick and/or Rocky Fork watershed(s).

BMP #5 – Hold at Least One Workshop to Train Residents to Recognize and Report Illegal Discharges
A workshop will be held to train a group of residents to recognize and report illegal discharges (**Theme 4**).

Rationale – Adding residents to the cadre of people paying attention to our streams and the runoff entering them increases the likelihood of detecting and eliminating illegal discharges.

Parties Responsible to Implement – New Albany PSD will schedule and publicize the event. Franklin Soil and Water will assist with publicity and provide the content delivery for the event.

Measurable Results – At least three residents will report at least one potential illegal discharge in a manner that reflects their training during the permit term remaining after the workshop.

3. Illicit Discharge Detection and Elimination

A. Introduction

This minimum measure requires the City of New Albany (the City) to implement and enforce a program to detect and eliminate illicit discharges, and includes comprehensive mapping of the Municipal Separate Storm Sewer System (MS4) as well as the establishment of codes to prohibit discharges to their MS4.

The regulatory definition of an MS4 (40 CFR 122.26(b)(8)) is:
"a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):
(i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States.
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."

As defined by EPA, an illicit discharge is any discharge to an MS4 that is not composed entirely of stormwater except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from firefighting activities. Please reference the IDDE Plan for additional information on Illicit Discharges.

This MCM is supported by the IDDE Plan for the City of New Albany. Please reference this plan for additional details on how MCM III is addressed.

Summarized Requirements

- Develop, implement, and enforce a program to detect and eliminate illicit discharges into your small MS4.
- Complete a comprehensive storm sewer system map showing the location of all outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls. The comprehensive storm sewer system map shall also include your MS4 system, including catch basins, pipes, ditches, flood control facilities (retention/detention ponds), post-construction water quality Best Management Practices (BMPs) and private post construction water quality BMPs. The map must be updated annually and as needed.
- Mapping must contain a list of all Household Sewage Treatment Systems (HSTSs) connected to discharge to your MS4. This map shall include details on the type and size of conduits/ditches in your MS4 that receive discharges from HSTSs, as well as the water bodies receiving the discharges from your MS4.
- Prohibit, through ordinance, or other regulatory mechanism, illicit discharges into the storm sewer system and implement appropriate enforcement procedures and actions.
- Develop and implement a plan to detect and eliminate non-stormwater discharges, including illegal dumping, to your MS4.
- Identify residences with existing individual discharging HSTSs that can be legally, feasibly, and economically connected to sanitary sewers.
- Develop or enhance an operation and maintenance program which determines if existing HSTSs are operating as designed and intended and if not, then a program that requires elimination, upgrade or replacement of the systems.
- Investigate the source of contamination in outfalls identified during the dry weather screening process.
- Work with local wastewater authorities to evaluate the planned or possible future installation of sewers for areas, which contain high densities of discharging HSTSs.
- Inform public employees, businesses and the public of hazards associated with illegal discharges and improper disposal of waste.

B. MS4 System and HSTS Maps

The City maintains a comprehensive set of data layers that comprise their MS4. This data is updated throughout the year as development occurs and/or field investigations reveal needed additions or corrections. The mapping layers include: storm sewer lines, open drainage, stormwater basins, inlet structures, outlet structures, waters of the state and post-construction BMPs. This mapping was developed from a combination of engineering plans and in-field verification and mapping of components

C. Authorizing Legislation

The City of New Albany maintains regulations defining and prohibiting pollution of stormwater in accordance with the spirit of the NPDES program. In addition to prohibition, penalties are defined for transgression. Refer to New Albany Ordinance O-02-2011; Chapter 931 "Protection

of Storm Sewer". This section also defines the conditions and timeline required for connection to sanitary sewer for residents with HSTS. Refer to New Albany's IDDE Plan for additional legislation and legal authorities related to pollution of stormwater.

Aeration systems have been identified as the primary source of illicit discharges in New Albany. However, other transient occurrences emerge from time to time. Each of these will be addressed according to the nature of the discharge. Please reference New Albany's IDDE Plan for contacts associated with the various types of pollution observed. The City's Service Department records and routes all complaints as appropriate. They can be reached at: 614.855.0076. Additional information can be found at: http://www.newalbanyohio.org/links/contact-us . For additional information on how illicit discharges are tracked to their source and the processes for addressing these discharges, please reference the City's IDDE Plan.

D. Household Sewage Systems (HSTS) and Board of Health

Franklin County Public Health staff have the authority to enforce Franklin County Public Health Regulation 720 (http://myfcph.org/pdfs/regs/720Sewage.pdf) and Ohio Revised Code 3718.011 to meet the requirements of the New Albany's NPDES Phase II Permit with regards to discharging HSTS. Franklin County Public Health has the authority to regulate sewage treatment systems ("STS") under both Revised Code Chapter 3718 and Franklin County Public Health Regulation 720. Neither R.C. Chapter 3718 nor Regulation 720 use the phrase "illicit discharge," however, the authority to address public health nuisance conditions is covered both by statute and Regulation 720.

When it is alleged or upon discovery that an HSTS is causing a public health nuisance as defined in R.C. 3718.011 and/or Regulation 720, then Public Health has the authority to investigate such complaints and allegations as IDDE program staff sanitarians are responsible for investigating all illicit discharges and sewage nuisances. FCPH follows a defined processes for investigating potential sewage related complaints. This process also defines means of abatement (including tying into existing sanitary sewer systems if available and feasible) as well as prosecution if compliance is denied. Please reference New Albany's IDDE Plan for a graphic of this process, or visit their website for the graphic and additional information. (http://myfcph.org/npdes.php) Franklin County Public Health (FCPH) also conducts yearly investigations of all aeration systems which are part of their Operations and Maintenance Plan to ensure they are operating as intended. For those systems which do not contract with FCPH, FCPH requires yearly inspections of the systems by a qualified/approved independent contractor.

FCPH works in conjunction with Franklin Soil and Water Conservation District (FSWCD) to maintain accurate mapping of these systems. Included with this data are the addresses, PIDs and outlet locations of the HSTS. This list and mapping is updated as systems are removed, added or corrections are needed. Discharge from aeration systems have been identified in local TMDL's, and as such, ongoing efforts associated with MCMIII are addressing this impediment to increased water quality. Please refer to New Albany's IDDE Plan for additional details on this focus.

E. Dry Weather Screening

An initial Dry Weather Screening (DWS) of MS4 outfalls and system outlets has been completed

and an evaluation of the system was completed to allow for a prioritization of future DWS for the City. Future DWS will be concentrated in areas where discharging HSTS still exist and at strategic system locations which will allow for detection of possible illicit discharges for significant portions of the City at one location.

In addition, detailed mapping of HSTS was performed in the Cedar Brook subdivision by FSWCD. This mapping includes the location of systems, outlet locations (when able to confirm) and the routing of the discharge piping from the system. Upon Completion of this mapping, New Albany worked with its residents to install new inspection boxes on all properties where permission was granted. This will allow for easier monitoring of the systems and tracking of illicit discharges if they are identified.

DWS will continue on an annual basis to monitor the areas identified above. In addition to these locations, all complaints regarding potential illicit discharges will be investigated. All results of DWS will be summarized and reviewed by the City on an annual basis.

BMP #1 – Authorizing Legislation

New Albany's Codified Ordinances are viewed as living documents which are constantly evolving based on the most current and scientifically sound BMP's and BAT's. In turn, this chapter will be reviewed on an annual basis to ensure that these standards meet or exceeded requirements of the City's current NPDES Phase II Permit.

Chapter 931 "Protection of Storm Sewer"

http://www.amlegal.com/nxt/gateway.dll/Ohio/newalbany_oh/codifiedordinancesofnewalbanyohio?f=templates$fn=default.htm$3.0$vid=amlegal:newalbany_oh

BMP #2 – MS4 System and HSTS Maps

New Albany's storm sewer dataset will be updated as new projects (Residential, commercial, civic, etc.) are approved and when existing storm sewer infrastructure is repaired/replaced. Existing data is also reviewed on a regular basis by New Albany for QA/QC using Trimble (Nomad and Juno) hand held data collectors, and current aerial photography. In addition, FSWCD reviews drainage, conducts field work and determines various connections and flows which are incorporated into the current mapping.

HSTS records and mapping are reviewed annually by FCPH to include any additions or modifications. These records and associated mapping contains descriptive information about the system as well as outlet locations for discharging systems. Additional in-field verification of systems will be completed if inconsistencies are discovered in the existing data set.

BMP #3 – IDDE Surveillance Plan

As outlined in the IDDE Plan, the City will continue to work with FSWCD and FCPH to identify and eliminate illicit discharges to the city's MS4. FCPH will continue with annual inspections of aerators, FSWCD will continue dry weather screening in areas identified as likely producing

illicit discharges and at strategic locations throughout the City; this includes use of inspection boxes installed by the City in the Cedar Brook subdivision. New Albany's service department will assist in investigating and eliminating any complaints received from residents or City personnel. Annual review of dry weather screening results will be conducted by the City and adjustments for dry weather screening the following year will be made if necessary.

BMP #4 – IDDE Elimination Plan

New Albany's PSD and FCPH are responsible for investigating and eliminating any identified illegal discharges. As noted above, dry weather screening results will be used to plan future dry weather screening plans.

4. Construction Site Stormwater Runoff Control

A. Introduction

This minimum control measure addresses management of stormwater runoff from construction activity disturbing one acre or greater. Stormwater runoff management addresses both how water is retained and released during and after stormwater events and how erosion is minimized through design, management of construction activity, and use of erosion control practices until the site is stabilized with permanent vegetation.

Sediment is the number one pollution of concern in Ohio with construction and urban runoff being the primary contributor in the City of New Albany and Franklin County. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. Unmanaged stormwater runoff from developed land results in stream bank erosion. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to local streams. Stormwater retention and detention on construction sites reduces the volume and velocity of stormwater entering ditches and streams. Another benefit of stormwater detention is increased infiltration of water into the soil. This replenishes the availability of ground water as a supply for drinking water and maintains base flow in local streams.

Benefits to the City include reduced erosion and sedimentation along waterways and ditches, and improved quality of streams for recreation and fishing.

Summarized Requirements:

- An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance. The regulation will be equivalent to the technical requirements set forth in the Ohio EPA General Permit for Construction Site Stormwater.
- Require construction site operators to implement appropriate erosion and sediment control BMPs.
- Require construction site operators to control waste such as, but not limited to, discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.
- Procedures for stormwater pollution prevention plan review which incorporate consideration of potential water quality impacts.

- Procedures for receipt and consideration of information submitted by the public.
- Procedures for site inspection and enforcement of control measures with a frequency of no less than monthly.

B. Decision Process

The City of New Albany continues to develop, implement and enforce a program to reduce pollutants to control construction site runoff on construction sites that result in a land disturbance of greater than or equal to one acre.

In order to control polluted runoff from construction sites, the City uses existing ordinances to require and enforce erosion and sediment controls at construction sites, including sanctions and enforcement mechanisms.

As a requirement of the NPDES general stormwater permit, all on-site operators are to maintain records and reports that keep track of the inspections completed by the on-site operator. The City of New Albany has procedures for site inspection and enforcement of control measures to deter infractions. Regular inspections by E. P. Ferris and Associates staff give the City an opportunity to provide additional guidance and education, issue warnings, or assess penalties.

The City tracks the receipt and consideration of public inquiries, concerns, and information submitted regarding local construction activities, both written and verbal. This action recognizes the important role that the public can play in identifying cases of noncompliance. To ensure sites are inspected for erosion and sediment control as well as for stormwater pollution prevention and are in compliance with all current regulations, the building department will inspect all active, permitted construction sites on a regular basis. If any of the sites are found to be out of compliance, the City Zoning Department will enforce the regulations and implement penalties as necessary.

C. Best Management Practices

To address this minimum control measure the City is using the following best management practices as a part of its construction site stormwater runoff control program:

- Ensure that New Albany has adequate ordinances and other regulatory mechanisms in place.
- Continue the complaint process already established which follows-up on 100% of received complaints. Create a specific category for stormwater related reports from the public.
- Review all construction site plans when construction disturbs more than 1 acre.
    - Review site's erosion and sediment control plan in accordance with Planning and Zoning Code Chapter 1183 Soil Erosion and Sediment Pollution.

    - Highlight unique features and review notes describing items
    - Locate and highlight or take note of additional typical ESC items such as silt fencing, straw filter socks, straw bales, ditch checks, concrete washout areas, stabilized construction entrances, sediment basin structural controls, etc.

- Recommend necessary plan changes to appropriate developer representative.
- Conduct inspections on a monthly basis and within 24 hours of a 0.5" or greater rainfall
- Perform additional site inspections as necessary to ensure compliance.
- Maintain communication and follow guidelines to ensure enforcement at noncompliant sites.

D. Responsible Party and Legal Authority

The Municipal Engineer or City Manager's Designee is responsible for the overall management and implementation of the construction site stormwater runoff control program (City of New Albany Codified Ordinances—Chapter 1183). E. P. Ferris and Associates acts on behalf of the City of New Albany for plan review and construction site erosion and sediment control inspections. The Municipal Engineer reviews the success, and document achievement of the measurable goals of the construction site stormwater runoff control program and BMPs.

F. Goals and Activities

BMP #1 – Authorizing Legislation
The authorizing legislation can be found in Chapter 1183 of the Codified Ordinances of New Albany, OH (http://www.amlegal.com/nxt/gateway.dll/Ohio/newalbany_oh/codifiedordinancesofnewalbanyohio?f=templates$fn=default.htm$3.0$vid=amlegal:newalbany_oh). See Appendix …. For the text of the legislation. The code clearly indicates that it applies to projects disturbing more than one acre of land (Section 1183.03). It also requires meeting the standards of the latest NPDES permit (Section 1183.04). While multiple features of the legislation address minimizing nutrient and bacteria runoff from construction sites, Section 1183.05, Guarantee for Completion of Work, provides protection beyond the minimum for ensuring that the SWP3 is fully implemented for the site.

BMP #2 – Plan Review Process
An NOI and SWP3 must be submitted to the Municipal Engineer prior to "any earth disturbing activity equal to or greater than one acre…." (Section 1183.03) The Municipal Engineer must indicate approval or disapproval of the SWP3 to the person filing the plan within 14 working days of submittal. Indication of disapproval must be accompanied by a description of "plan deficiencies and the procedures for filing a revised plan. Pending preparation and approval (determination of compliance) of a revised plan, earth- disturbing activities shall proceed only in accordance with conditions outlined by the Municipal Engineer, or City Manager's designee." (Section 1183.03) The approved SWP3 must be kept in a location approved by the Municipal Engineer or Administrator's designee (e.g. mailbox, construction trailer, etc.).

BMP #3 – Site Inspection Process
E. P. Ferris and Associates staff shall inspect the site on a monthly basis and within 24 hours of a 0.5" or greater rainfall "in order to determine compliance" with regulations laid out in Chapter 1183 of the City's Code.

BMP #4 – Enforcement Program
"[The Inspector shall also report the deficiency or noncompliance to the Municipal Engineer, or City Manager's designee.] Upon determination that a person or firm is not complying with these regulations, the Municipality may issue an order to comply to the property owner or his agency in writing." (Section 1183.06) If non-compliance is identified on a project that is underway, the City may issue a stop work order, refuse to issue building permits or take other action to insure compliance. In the case of a violation of the sediment and erosion control regulations, the responsible party (whether it be an individual or a company) "shall be deemed guilty of a minor misdemeanor for the first five days that such violation exists. The court of competent jurisdiction may levy a fine of up to one thousand dollars ($1,000.00) a day for each day thereafter that the violation exists. Each day such violation continues shall be considered a separate offense." (Section 1183.99)

5. Post-Construction Stormwater Management in New Development and Redevelopment

A. Introduction

These measures start at development plan review and continue through ongoing management of stormwater management practices that remain on site after construction is completed. Good construction site management and use of non structural BMPs, including wise placement of green space and stream buffers, can reduce costs of ongoing maintenance.

As post construction runoff flows over developed land it carries pollutants such as sediment, oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus) to nearby ditches and streams. Once deposited, these pollutants impact water quality and viability of aquatic organisms. Post construction runoff also increases the quantity of water delivered to ditches and streams during storm events. Stormwater is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process include stream bank erosion and downstream flooding. As stormwater is directed into streams and ditches, infiltration of water to replenish the water table is decreased.

Benefits to the City from controlling post-construction runoff include reduced erosion and sedimentation along waterways and ditches, improved quality of streams for recreation and fishing, reduced property damage from flooding, and continued availability of a quality drinking water supply

Summarized Requirements:

- Develop, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb one-acre of land or greater to help minimize water quality impacts.
- Consideration of non-structural BMPs for stormwater management program, including, as appropriate: policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas,

maintain and/or increase open space, provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation.

- Consideration of structural BMPs in the program, including, as appropriate: storage practices such as wet ponds and extended-detention outlet structures; filtration practices such as grassed swales, bioretention cells, sand filters and filter strips; and infiltration practices such as infiltration basins and infiltration trenches.
- Identify the mechanisms (ordinance or other regulatory mechanisms) to address post construction runoff from development and redevelopment and include reasons for selection of the mechanism(s) within the first two years of the permit.
- The plan should ensure that long-term operation and maintenance (O&M) plans are developed and agreements in place for all applicable sites within the first two years of the permit.

B. Decision Process

The City of New Albany is addressing stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre with controls that prevent or minimize water quality impacts. This may include retrofits to existing basins to improve the water quality of the runoff and decrease the amount of water quantity going into the receiving stream. This may also include an educational component on the specifics of what best management practices will best accomplish these retrofits and what best management practices will accomplish post construction stormwater management on new development sites.

As development moves forward in the City, operation and maintenance plans are required for all post-construction BMPs with agreement that clearly identifies who is the responsible party for maintaining the BMP. When selecting BMPs for this minimum control measure community demographics, land use, potential pollution sources, existing water quality and stormwater system information are considered.

C. Best Management Practices

To address this minimum control measure the City will address the following best management practices as a part of its post construction management program:

- Ensure that New Albany has adequate ordinances and other regulatory mechanisms in place, including procedures to review site plans for post-construction requirements as listed in Ohio EPA's general construction permit and New Albany chapter 1195.
- Consider adopting ordinances regarding riparian setbacks, wetland setbacks, open space requirements and green infrastructure.
- Provide information to permit applicants regarding post-construction requirements and non-structural and structural BMPs at the time of permitting.
- During post construction meeting ensure O&M agreements are in place and responsibilities are understood.
- Perform two site inspections per site once the city has accepted the site and the developer is no longer responsible to ensure the BMPs are still functioning as intended and the natural resources continue to be protected.

- Conduct annual follow-up site visits at previous construction sites.
- Put in place procedures for enforcing compliance of post-construction operations and maintenance agreements.
- Follow enforcement procedures.
- Procedures in place to review site plans for post-construction requirements as listed in Ohio EPA's general construction permit and New Albany chapter 1195.

D. Responsible Party and Legal Authority

The Municipal Engineer is responsible for the overall management and implementation of the post construction stormwater management program (City of New Albany Codified Ordinances—Chapter 1183). Franklin Soil and Water provides technical guidance, educational opportunities to assist the City in training and meeting this minimum control measure.

F. Goals and Activities

BMP #1 – Authorizing Legislation
The authorizing legislation can be found in Chapter 1181 of the Codified Ordinances of New Albany, OH (http://www.amlegal.com/nxt/gateway.dll/Ohio/newalbany_oh/codifiedordinancesofnewalbanyohio?f=templates$fn=default.htm$3.0$vid=amlegal:newalbany_oh). See Appendix …. For the text of the legislation. The code clearly indicates that it applies to "all land developments." (Section 1181.03). Sections 1181.04 identifies specific exemptions, while Section 1181.05 describes conditions under which a waiver may be given, such as for projects disturbing less than one acre. It also requires meeting the standards of the latest NPDES permit (Section 1181.01). It further indicates, "The design standards contained in the latest editions of the Ohio Department of Natural Resources (ODNR) Rainwater and Land Development Manual and the City of Columbus, Division of Sewerage and Drainage, Department of Public Utilities Stormwater Drainage Manual shall be used to determine the technical acceptability of land development stormwater management methods." (Section 1181.02) The Municipal Engineer is responsible for administering the program.

New Albany's Code of Ordinances requires that "[g]ood faith effort shall be made to preserve natural vegetation areas." (Section 1171.03) In addition, "All streams with a drainage area greater than 50 acres and their riparian corridors shall be preserved. The corridor width shall be a minimum of 100 feet, with at least 25 feet on each side of the centerline of the stream." (Section 1171.03) The Code permits the establishment of Planned Unit Development Districts (Chapter 1159) which can be used to "[m]inimize adverse impacts of development on the environment" and "[p]rovide for innovations in land development, especially for affordable housing and infill development." In addition, Chapter 1322 describes a green building incentive program which includes incentives for preserving trees, minimizing lot coverage and exceeding minimum tree requirements.

New Albany's Codified Ordinances are viewed as living documents which are constantly evolving based on the most current and scientifically sound BMP's and BAT's. In turn, this

chapter will be reviewed on an annual basis to ensure that these standards meet or exceeded requirements of the City's current NPDES Phase II Permit.

BMP #2 – Plan Review
At the time of SWP3 submittal, the permittee will submit a Post Construction Operations and Maintenance (O&M) Plan for review by the Municipal Engineer. The O&M plan will be reviewed to ensure facilities meet the stormwater quantity and quality requirements of the General Permit and are designed using principles from the latest edition of the Ohio Department of Natural Resources *Rainwater and Land Development Manual*. Plan review will place an emphasis on meeting TMDL concerns for post-construction facilities.

BMP #3 – Program to Ensure Installation
Prior to the Occupancy Permit being issued for the facility, as-built drawings of post-construction water quality facilities will be submitted for review to the Muncipal Engineer. Once approved, the facility is subject to the requirements of the O&M Plan developed for the facility.

BMP #4 – Long-term Maintenance Program
The post-construction facilities are to be inspected according to the previously approved O&M Plan for the facility. The City will send an annual reminder to facilities under the post-construction program reminding them to submit a copy of their annual inspection report to the City for review. The City will randomly inspect 20% of facilities on an annual rotating basis to review records and conduct an inspection of the post-construction facilities. New facilities will be added to the MS4 map on an annual basis. The City has contracted with Follow the River Environmental to conduct the inspections. A copy of the Consulting Agreement is part of the Stormwater Management Plan. Training will be provide by Follow the River to City staff on how to conduct post-construction inspections for eventual inspection to be taken on by the City and not contracted.

BMP #5 – Enforcement Program
"The Municipal Engineer shall notify in writing the person or company found in violation of the conditions of this chapter and that person or firm shall have five (5) working days to correct the violation prior to the institution of penalties outlined in Section 1181.99." (Section 1181.10)

"Any person, firm or corporation violating any provision, amendment or supplement of this chapter may be subject to forfeit of construction bond to the amount determined necessary by the Municipal Engineer to eliminate the violation and bring the subject stormwater control and management systems into compliance. Also, to guarantee completion of work to the standards set in these regulations, the Municipal Engineer or his designee may issue a stop work order, withhold the issuance of building permits, may not conduct inspections or may take other action permitted by their lawful powers to ensure the work needed to satisfy the requirements of these regulations is completed." (Section 1181.99)

BMP 5 - Enforcement Program
Once the as-built certification is approved and Occupancy permit is issued for the facility, it is the facility owner's responsibility to conduct inspections and schedule maintenance activities for the facility. If facilities are not being maintained per the approved O&M Plan, the City will first

send a letter outlining the deficiencies with a corrective timeframe. If the deficiencies are not remedied in the specified timeframe, the City will issue a Notice of Violation.

6. Pollution Prevention and Good Housekeeping

A. Introduction

This measure requires the MS4 to examine and alter their own actions to help insure a reduction of pollution that collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged to local waterways.

Benefits to the City include leading the example to improve water quality in the City, possible cost savings through timely maintenance of storm sewer systems, reduction in fertilizer and pesticide usage, etc..., and promotion of New Albany as a Green Pact member community.

Summarized Requirements:

- Must include employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances and stormwater system maintenance.
- Must include a list of industrial facilities that MS4 owns and operates. Stormwater Pollution Prevention Plans (SWPPP) need to be developed and implemented for listed facilities within the first two years of the permit.
- Must address maintenance activities, schedules, inspection procedures, and proper waste disposal for controls to reduce pollutants to your MS4s.
- Must ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices and practices.

B. Decision Process

The City of New Albany maintains and update as necessary good housekeeping/ pollution prevention plans for its Public Service Department facility. A good housekeeping workshop is held yearly for appropriate departmental staff. The City maintains appropriate records regarding these sites and appropriately handles the disposal of waste, application of fertilizer and salt, and management of pesticide use.

C. Best Management Practices

To address this minimum control measure the City is using the following best management practices as a part of its Pollution Prevention & Good Housekeeping program:

- Hold one good housekeeping workshop for each city department involved with park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance, reviewing the SWPPPs with staff.
- Continue to update list of subject facilities

- Base catch basin repair and stormwater line improvement on resident complaints and on yearly maintenance plan.
- Maintain regular schedule for cleaning catch basins and structures.
  - Stormwater Rack/basin Maintenance planned and documented.
- Properly manage and dispose of wastes.
- Properly apply salt in a way that minimizes usage.
- Properly manage use of pesticides and herbicides
- Decrease use of fertilizer – especially fertilizer with phosphorus
- Minimize trash, grits, and other pollutants in the street which may be transferred to the stormwater system.
- Ensure stormwater management is considered for all flood management projects.

D. Facilities List

Service Dept Address:
7800 Bevelhymer Road
New Albany, Ohio 43054

E. Responsible Party and Legal Authority

The Municipal Engineer or City Manager's Designee is responsible for the overall management and implementation of the pollution prevention and good housekeeping program for New Albany (City of New Albany Codified Ordinances—Chapter 1183). The Municipal Engineer is responsible for the creation and implementation of a Stormwater System Maintenance Plan. Aaron Noblet has responsibility under the aegis of the Municipal Engineer's Office for implementing the SWMP generally and ensuring the implementation of the SWPP for the facility above specifically.

F. Goals and Activities

BMP #1 – Employee Training
New Albany's Department of Public Service will continue hosting an annual workshop to address pollution prevention/good housekeeping with help from the FSWCD. In an attempt to broaden services while consolidating resources (Watershed approach) the city will extend an open invitation to other surrounding communities (Cities of Gahanna, Westerville, and Worthington as well as Jefferson, Jersey and Monroe Townships) in hopes that they will participate in this annual workshop moving forward.

BMP #2 – Stormwater Pollution Prevent Plans (SWPPPs) for Municipal Operations
Existing facility list and corresponding SWP3 will be reviewed and evaluated annually based on the most current and scientifically sound BMP's and BAT's per the city's current NPDES phase II permit. See above for address of facility requiring an SWPPP.

BMP #3 – Stabilization of Disturbed Soils and Soil Stockpiles
Disturbed soils and soil stockpiles at the service yard and on municipal construction activity will be stabilized on a timely schedule.

BMP #4 – Establish Wash Stations
Wash stations have been established which are directed to interceptor separators. These will be used to wash all Service Department vehicles and equipment when such cleaning is required.

BMP #5 – Develop Integrated Pest Management Program
An Integrated Pest Management (IPM) program will be developed to reduce fertilizer & pesticide usage.

BMP #6 – No-mow Practices
No-mow practices that preserve buffer areas near Rose Run and other critical riparian zones will be observed.

BMP #7 – Vegetative Buffers
Permanent natural vegetative buffers will be maintained, protected and/or restored between developed areas and water resources.

BMP #8 – Implement a Pet Waste Disposal Program on a Leisure Trail (Theme 3)
Stations providing pet waste bags and cans designated for disposing pet waste will be installed along a leisure trail. The program will be designed to remind the public of the importance of pest waste disposal, while making it as easy as possible for pet owners to dispose of pet waste when walking on the trail.

BMP #9 – Green Infrastructure
Locations where green infrastructure such as bioretention, permeable pavement, cisterns, and infiltration trenches or basins can be installed at municipal facilities will be identified.

BMP #10 – MS4 System Maintenance and Pollution Prevention Programs
The Department of Public Service will continue to develop and implement a maintenance plan for New Albany's MS4. The City will have approximately 86 miles of street swept monthly between March and November. Approximately 2,000 catch basins will be inspected annually with cleaning and structural repairs done as needed. There will be a biannual trash collection program for open channel MS4s along 161 involving all Service Department staff. Periodic streamside & open channel trash cleanup throughout the year as needed. The City has an active, year round road-kill program and proper disposal that will be continued.

BMP #11 – Proper Stormwater Practices for City Maintenance Activities
Stormwater pollution prevention policies and procedures related to City maintenance activities will be reviewed annually and updated as needed based on the most current and scientifically sound BMP's and BAT's per the city's current NPDES phase II permit. These activities include:

- Deicer application and storage
- Trash collection
- Leaf and yard debris collection
- Street repairs and maintenance
- Water and power line repairs and maintenance
- Pesticide, herbicide and fertilizer application and storage
- Parks, cemetery and golf course grounds management
- Police and fire department activities as addressed under the permit.