2022 Stormwater Management Plan: City of Delaware

Table of Contents

Appendices

Introduction

History of the Clean Water Act and Storm Water Management Regulations

In 1972, the Clean Water Act (CWA) was enacted to strengthen the Water Pollution Control Act (WPCA) of 1948. The CWA was intended to prohibit the discharge of any pollutants to Waters of the United States from a point source unless the discharge is authorized under a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES program initially focused on discharges from industrial processes and municipal sewage treatment facilities. As pollution control measures for these pollutant sources were implemented and refined, it became increasingly evident that additional sources of pollution were contributing to water quality degradation. Specifically, stormwater runoff was identified as a major cause of water quality impairment along with agriculture and silviculture practices.

Since 1972 and the passage of the CWA, the quality of our Nation's waters have improved dramatically. Despite this progress, degraded water bodies still exist. According to a 1996-2000 National Water Quality Inventory, a biennial summary of State surveys of water quality, an estimated forty (40) percent of surveyed water bodies are still impaired by pollution or do not meet national, state or local water quality standards.

Congress in 1987 to amend the CWA mandating that the United States Environmental Protection Agency (USEPA) develop a phased implementation strategy for the NPDES program. Phase I of the USEPA stormwater program was promulgated in 1990 and relies on NPDES permit coverage to address stormwater run-off from:

- Medium/Large Municipal Separate Storm Sewer Systems (MS4s) generally serving populations of 100,000 or greater,
- Construction activity disturbing 5 acres of land or greater, and
- Ten categories of Industrial Activity.

The Stormwater Phase II program is the next step and is an extension and expansion of the Phase I program. This program requires additional owner/operators of small MS4s in urbanized areas, defined by the year 2000 US Census tract data, and owner/operators of small construction sites to address stormwater run-off through the use of NPDES permits. This Phase addresses the small MS4s in addition to the following Non-traditional Federal, State and Tribal agencies:

- U.S. Department of Defense
- State Hospitals
- State Prisons
- State Departments of Transportation (DOT) - not previously covered under a Phase I permit
- Universities
- Tribal Areas identified as small MS4s owner/operators

The Phase II rule was finalized in December 1999 and required a submittal date of March 2003. On December 27, 2002, Ohio EPA enacted General Permit (No.OHQ000001) for the authorization for small municipal separate storm sewer systems to discharge stormwater under the NPDES (Ohio EPA's Phase II

General Permit). The two previous NPDES Small MS4 general permits (#OHQ000002, and #OHQ000003, respectively) required the development, implementation, and update of the Stormwater Management Program that satisfied the appropriate water quality requirements of the Ohio Revised Code (ORC) 6111 and the Clean Water Act. The Ohio EPA's Phase II General Permit identifies the following six Minimum Control Measures (MCM):

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Controls
5. Post Construction Stormwater Management
6. Pollution Prevention/Good Housekeeping for Municipal Operations

The NPDES Small MS4 permit was reissued on April 1, 2021 (#OHQ000004), and requires MS4 communities which are renewing coverage under this permit to update their SWMP to be consistent with #OHQ000004 and submit to Ohio EPA for review. #OHQ000004 requires that where applicable, BMPs shall be selected to address U.S. EPA approved TMDL recommendations for identified water quality problems associated with MS4 discharges within *City of Delaware's* watershed(s), which satisfy the permit requirements to the Maximum Extent Practicable (MEP). The practices, programs, policies and projects incorporated in the Stormwater Management Plan evaluated cost, manpower, maintenance and reporting requirements of each of the BMPs presented in the plan.

The following information is presented to support the Ohio EPA's Phase II General Permit for coverage associated with stormwater discharges governed by the permit requirements. Sections I and II of the permit address coverage and Notice of Intent requirements respectively. The Notice of Intent (NOI) has been completed and the square mileage of the regulated area has been estimated to determine the fee to be submitted with the NOI and are submitted independent of this Stormwater Management Plan (SWMP).

Purpose of the Permit

The City of Delaware (City) is an Appendix 7 community that has been granted authorization for their Small Municipal Separate Storm Sewer Systems (MS4) to discharge stormwater under the National Pollutant Discharge Elimination System. In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., and the Ohio Water Pollution Control Act (Ohio Revised Code 6111) entities that discharge stormwater from Small MS4s, as defined in Part 7 of this permit are authorized by the Ohio Environmental Protection Agency, hereafter referred to as "Ohio EPA," to discharge from the outfalls and to the receiving surface waters of the state identified in their Notices of Intent (NOI) Application form on file with Ohio EPA in accordance with the conditions specified in this permit. The primary objective of this requirement, outlined in *40 CFR Parts 9, 122, 123 and 124, "National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges"* issued by the USEPA in December 1999, is to require the development of a stormwater management plan (SWMP) that addresses the six (6) minimum control measures set forth in the regulation.

Legal Authority to Implement the Stormwater Management Program

Part III. A. 1. b. of the permit requires statements indicating legal authority to implement selected Best Management Practices (BMPs) associated with permit compliance. Varying levels of legal authority to implement a stormwater program exist. Many of the BMPs discussed in this SWMP could be required under the subdivision regulations, building codes or health regulations of the City.

MUNICIPALITY
The *City of Delaware* has the legal authority to implement the following Stormwater Management Program under Article XVIII, Section 3 of the Ohio Constitution granting municipalities the authority to adopt land use and control measures for promoting the peace, health, safety and general welfare of their citizens.

Financial Ability to Implement the Stormwater Management Program

The permit clearly states that all selected measurable goals and BMPs are to be to the Maximum Extent Practicable (MEP). This also includes the financial impact of implementing a program of this type. The financial abilities of the City to implement the SWMP were taken into consideration during development and BMP selection.

The City of Delaware adopted Ordinance 98-61 that established a stormwater utility and fee to allow the City to "own, operate, maintain, repair, improve, and extend the existing a stormwater drainage facilities servicing the City." This utility and fee are not specifically directed to be used for the requirements of the Phase II program, however SWMP activities are funded by the stormwater utility fee or stormwater professional services fun. In 2021 a utility fee Level of Service assessment was completed, and the stormwater fee was increased for the first time in 21 years to $4.50 per month per household. The City evaluates the stormwater fund every year with Capital Improvement Plan budgeting. If necessary the City can suggest alternative funding arrangements yearly during this process.

Overview of Community Stormwater System

The SWMP's area lies in central Ohio as shown on Figure 1. The Olentangy River and its tributary Delaware Run are the major water courses draining the City. The City of Delaware has an MS4 drainage area of approximately 14.2 square miles. The majority of the City has storm and sanitary sewers.
The stormwater drainage system for the City is a combination of ditches that run parallel to City roads, and a closed pipe system. The majority of the closed pipe systems are located in subdivisions. The City updates its Stormwater Capital Improvement Plan every year during the budgeting process, which will be modified as necessary to support practices identified in the SWMP.

The City operates a Municipal Separate Storm Sewer Systems (MS4). The Phase II program regulates MS4s located wholly or partially within urbanized areas, as defined by the United States Bureau of the Census. Urbanized areas include cities and townships with populations greater than 10,000 and less than 100,000 people. The permitted facilities under the City's jurisdiction include City roads and other City facilities located within the urbanized areas as shown on Appendix B.

The Olentangy Watershed in the City has had a U.S. EPA-approved TMDL report prepared for the following water quality problems and pollutants: Total Suspended Solids (TSS), Total Phosphorous (TP), and E. coli bacteria.

To maintain compliance with #OHQ000004, The City of Delaware will use the recommendations made in the TMDLs for the above watersheds to better tailor our BMP selection to address noted water quality problems attributed to MS4 discharges.

Stormwater Management Program (SWMP) Requirements of Small MS4 Permit (OHQ000004)

1. You shall develop, implement, and enforce an SWMP designed to reduce the discharge of pollutants from your small MS4 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; and shall be modified to include provisions as Ohio EPA determines appropriate after its review of the program for the control of such pollutants. Your SWMP shall include the following information for each of the six minimum control measures described in Part III.B of this permit:

a. The BMPs that you or another entity will or already implement for each of the stormwater minimum control measures. Where applicable, BMPs shall be selected to address U.S. EPA approved TMDL recommendations for identified water quality problems associated with MS4 discharges within your small MS4's watershed.

b. For each BMP identified, statements indicating whether you believe you have the legal authority to implement said BMP or how you intend to partner with an entity that does.

c. The measurable goals for each of the BMPs, including, as appropriate, the months and years in which you will undertake required actions, including interim milestones and the frequency of the action. At a minimum, measurable goals shall be implemented to satisfy this permit's performance standards; and

d. The person or persons, including position title or titles, responsible for implementing or coordinating the BMPs for your SWMP. The SWMP shall include a Table of Organization, including a primary point of contact, which identifies how implementation across multiple positions, agencies and departments will occur.

e. In addition to the requirements listed above, you shall provide a rationale for how and why you selected each of the BMPs and measurable goals for your SWMP, including how selected BMPs address applicable TMDL recommendations.

2. If you are obtaining your initial small MS4 general permit coverage under this permit, you shall develop and implement your program within five years of being granted coverage under this permit. If you are renewing coverage under this permit, you shall update your SWMP to be consistent with requirements of this permit within one (1) year of the effective date of this general permit and submit as an attachment with your 2021 Annual Report that will be due on April 1, 2022.

Sharing Responsibility

Implementation of one or more of the minimum measures may be shared with another entity, or another entity may fully implement the measure on your behalf. You may rely on another entity only if:

1. The other entity, in fact, implements all or part of the control measure;

2. The particular control measure, or component of that measure, is at least as stringent as the corresponding permit requirement; and

3. The other entity agrees to implement the control measure on your behalf. There shall be written acceptance of this obligation. This obligation shall be maintained as part of your SWMP. If the other entity agrees to report on the minimum measure, you shall supply the other entity with the reporting requirements contained in Part IV.C of this permit. If the other entity fails to implement the control measure on your behalf, then you remain liable for any discharges due to that failure to implement.

Reviewing and Updating Stormwater Management Programs

1. SWMP Review: You shall do an annual review of your SWMP in conjunction with preparation of the annual report required under Part IV.C of this permit.

2. SWMP Update: You may change your SWMP during the life of the permit in accordance with the following procedures:

a. Changes adding (but not subtracting or replacing) components, controls, or requirements to the SWMP may be made at any time upon written notification to Ohio EPA.

b. Changes replacing an ineffective or infeasible BMP specifically identified in the SWMP with an alternate BMP may be requested at any time. Unless denied by Ohio EPA, changes proposed in accordance with the criteria below shall be deemed approved and may be implemented 60 days from submittal of the request. If the request is denied, Ohio EPA will send you a written response giving a reason for the decision. Your modification requests shall include the following:

i.) An analysis of why the BMP is ineffective or infeasible (including cost prohibitive),

ii.) Expectations on the effectiveness of the replacement BMP, and

iii.) An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.

c. Change requests or notifications shall be made in writing and signed in accordance with Part V.G of this permit.

3. SWMP Updates Required by Ohio EPA: Ohio EPA may require updates to the SWMP as needed to:

a. Address potential impacts on receiving water quality caused, or contributed to, by discharges from the MS4; or

b. Include such other conditions deemed necessary by Ohio EPA to comply with the goals and requirements of ORC 6111 and the Clean Water Act.

c. Changes requested by Ohio EPA will be made in writing, set forth the time schedule for you to develop the changes, and offer you the opportunity to

propose alternative program changes to meet the objective of the requested modification. All changes required by Ohio EPA will be made in accordance with OAC Chapter 3745-47.

4. Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation: You shall implement the SWMP on all new areas added to your portion of the small MS4 (or for which you become responsible for implementation of storm water quality controls) as expeditiously as practicable, but not later than one year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately. An exception to this one-year timeframe exists for requirements associated with the comprehensive storm sewer system map and dry-weather screening of storm water outfalls. If you will be unable to complete these requirements within one year from the addition of the new areas, you shall provide an alternative schedule to complete with the following annual report.

a. Within 90 days of a transfer of ownership, operational authority, or responsibility for SWMP implementation, you shall have a plan for implementing your SWMP on all affected areas. The plan may include schedules for implementation. Information on all new annexed areas and any resulting updates required to the SWMP shall be included in the annual report.

b. Only those portions of the SWMPs specifically required as permit conditions shall be subject to modification. Addition of components, controls, or requirements by the permittee(s) and replacement of an ineffective or infeasible BMP implementing a required component of the SWMP with an alternate BMP expected to achieve the goals of the original BMP shall be considered minor changes to the SWMP and not modifications to the permit.

Acronyms

Acronyms used in this report include:

BMP(s)	Best Management Practice(s)
CLUP	Comprehensive Land Use Plan
CWA	Clean Water Act
DKMM	Keep Delaware County Beautiful
DPHD	Delaware Public Health District
DO	Dissolved Oxygen
DOT	Department of Transportation
E&SC	Erosion and Sediment Control
EPA	Environmental Protection Agency
FLOW	Friends of the Lower Olentangy Watershed
GIS	Geographical Information Systems
GPS	Global Positioning System
HOA	Home Owners' Association
HSTS	Home Sewage Treatment System
KDCB	Keep Delaware County Beautiful
MCM	Minimum Control Measure
MEP	Maximum Extent Practical
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
MSDS	Material Safety Data Sheet
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
ODNR	Ohio Department of Natural Resources
ODOT	Ohio Department of Transportation
OEPA	Ohio Environmental Protection Agency
OSU	The Ohio State University
OWU	Ohio Wesleyan University
PUD	Planned Unit Development
SWCD	Soil and Water Conservation District
SWMP	Stormwater Management Program/Plan
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
TP	Total Phosphorous
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WPCA	Water Pollution Control Act

Minimum Control Measures

Tables have been developed that describe each proposed BMP, and show the schedule, measurable goals, responsible parties, and rationale for the selection of each BMP. These tables form the basis of the following text sections. The bold text in the following sections is our response to each requirement in Ohio EPA's Phase II General Permit No. OHQ000004.

The six minimum control measures that shall be included in your SWMP are:

MCM 1: Public Education and Outreach on Stormwater Impacts

a. You shall implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. In the case of non-traditional small MS4s (e.g., OTIC, ODOT, universities, hospitals, prisons, military bases, and other government complexes), you are only required to provide educational materials and outreach to your employees, on-site contractors, and individuals using your facilities.

The BMPs, measurable goals, responsible parties and rationale for MCM 1 are presented in Table 1 in Appendix A.

b. Decision process. You shall document your decision process for the development of a stormwater public education and outreach program. Your rationale statement shall address both your overall public education program and the individual BMPs, measurable goals and responsible persons for your program. The rationale statement shall include the following information, at a minimum:

i.) How you plan to inform individuals and households about the steps they can take to reduce stormwater pollution.

ii.) How you plan to inform individuals and groups on how to become involved in the stormwater program (with activities such as local stream and beach restoration activities).

The City will inform the public about the steps they can take to reduce stormwater pollution and to get involved with the City of Delaware's SWMP program through a combination of workshops, community activities, print media, social media, and website postings.

iii.) Who are the target audiences for your education program who are likely to have significant stormwater impacts (including commercial, industrial and institutional entities) and why those target audiences were selected.

The target audience includes employees and citizens. Contractors and individuals using facilities subject to this permit. The City, Delaware County departments and

agencies involved in preparation of this SWMP include the City Public Utilities Department, the City Public Works Department, the City Planning Department, and the City Public Affairs Department. Several public involvement activities, including proposed newspaper articles, newsletters and website information, are targeted toward very broad audiences. Other education efforts will include brochures, materials and workshops, aimed at audiences such as businesses, universities, homeowners associations, and contractors.

iv.) What are the target pollutant sources your public education program is designed to address.

Ohio EPA completed the Draft Total Maximum Daily Loads (TMDL) for the Olentangy River Watershed on October 12, 2006. The City of Delaware lies within the Lower Olentangy Watershed (Hydrologic Unit Codes 05060001 120) as described by that document. The listed causes for impairment for the watershed are as follows (Causes referenced from the *Olentangy River Watershed Report*, October 12, 2006):

- **Nutrients/TP**
- **Sediment/TSS**
- **And Bacteria/E.Coli**
- **Habitat Alteration**
- **Flow Alterations**

The Olentangy River TMDL identified the above causes of impairment except flow alteration. The City will focus on the above target pollutant sources.

The City of Delaware identified a number of objectives in the *City of Delaware 2021 Comprehensive Plan* which incorporate designs and practices to protect water resource quality. These include:

- **Encourage Low Impact Development (LID)**
- **Conserve natural areas wherever possible**
- **Minimize the development impact on hydrology**
- **Maintain runoff rates and duration from the site**
- **Implement pollution prevention, proper maintenance and public education programs**
- **Allow green roofs on large format flat roofed buildings**
- **Encouraging sustainable design of ponds or other water features**
- **Integrating bioswales, rain gardens, or other stormwater retention interventions**
- **Minimize impervious surfaces**

- **Discourage development of significant slopes**
- **Mitigate development on poorly drained soils**
- **Prohibit development in the floodplain**
- **Preserve trees and reforest areas with tree buffers**
- **Enhance greenspace**
- **Buffer waterways**
- **Allow more compact development and thereby limit sprawl**
- **Promote the establishment of conservation easements within the 100-year floodplain**
- **Promote re-forested buffers of 120 feet in width along the main stem of the Olentangy River**
- **Promote forested buffers of 60 and 30 feet in width along major and minor water tributaries respectively**
- **Propose developing an environmental analysis map for all new development**

v.) What is your outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) you will use to reach your target audiences, and how many people do you expect to reach by your outreach strategy over the permit term.

The City SWMP relies on existing media to communicate with the target audiences. These existing resources include newspaper articles, newsletters to be provided by the City mailed with utility bills, and the City website and social media platforms. These existing resources will be supplemented with educational sessions outlined in Table 1 (Appendix A). Milestones listed in Table 1 for the various practices selected include efforts to document the number of people reached.

vi.) Who (person or department) is responsible for overall management and implementation of your stormwater public education and outreach program and, if different, who is responsible for each of the BMPs identified for this program.

See Appendix C for the responsible party for each BMP.

vii.) How will you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

We will determine the success of this measure by the number of publications distributed, number of social media followers and website views, and the number of interactions at educational events.

c. Performance Standards. Your stormwater public education and outreach program, at a minimum, shall include:

i.) More than one outreach mechanism.

ii.) A minimum of five storm water themes or messages over the permit term.

Rationale for Themes and Target Audience Selection

Our MS4 is located in the Olentangy River watershed, which has TMDLs for Total Suspended Solids (TSS or sediment), Total Phosphorous (TP), and E.coli. Because the majority of these pollution problems are caused by increases in impervious cover, construction, and agricultural runoff, and the resulting increases in stormwater volume and velocity, we will focus much of our Public Education and Outreach program on increasing public awareness of the links between land use practices and stormwater pollution. We will target pollutant sources identified in our TMDL such as sediment pollution from stream bank erosion and improperly controlled construction sites and habitat alteration due to land use changes. Our education and outreach program focuses on addressing these pollutants. During our permit term, we will choose at least five of the following themes:

1. **Improving stormwater runoff by addressing nutrients and habitat degradation. Promotion of reducing turfgrass and limiting fertilizer and pesticide usage on residential lawns; waste reduction and composting education as an alternative to traditional fertilizers.**
2. **Addressing bacteria and nutrient pollution through pet waste cleanup education and HSTS maintenance education.**
3. **Educating developers on construction site erosion and sediment control practices.**
4. **Promoting the benefits of riparian buffers for maintaining a healthy stream corridor and reducing streambank erosion.**
5. **Promoting rain barrels, rain gardens, native plantings, and other green infrastructure, to teach residents about infiltrating stormwater on-site and enable them to better manage stormwater on their properties.**

iii.) Your stormwater public education and outreach program shall reach at least 50 percent of your population over the permit term.

We do this through utility bill mailings; we still mail paper bills to all 15,500 households, so by including a newsletter in the utility bills, we ensure that we are reaching 100% of our population. The additional outreach mechanisms of social media posts, newspaper articles, website posts, brochures, flyers, and tabling events ensure overlap and additional exposure to residents.

iv.) TMDL Performance Standard (see Appendix A). If your small MS4 discharges to a watershed with a U.S. EPA approved TMDL, your storm water public education and outreach program shall, at a minimum, target each TMDL pollutant identified for your small MS4 at least once to satisfy your minimum of five storm water themes or messages over the permit term. Single themes or messages may target multiple

pollutants.

Themes 1 and 4 above address target pollutant TP
Theme 2 above addresses target pollutant E.Coli
Themes 3 and 5 above address target pollutant TSS

v.) Your annual report shall identify each mechanism used and its stormwater theme, target pollutant(s), its target audience and an estimate of how many people within your jurisdiction were reached by each mechanism.

MCM 2: Public Involvement/Participation

a. You shall comply with State and local public notice requirements and satisfy this minimum standards when implementing a public involvement/participation program. In the case of non-traditional small MS4s (e.g., OTIC, ODOT, universities, hospitals, prisons, military bases, and other government complexes), you are required to involve employees, on-site contractors, and individuals using your facilities.

b. Decision process. You shall document your decision process for the development of a stormwater public involvement/participation program. Your rationale statement shall address both your overall public involvement/participation program and the individual BMPs, measurable goals, and responsible persons for your program. The rational statement shall include the following information, at a minimum:

i.) Have you involved the public in the development and submittal of your NOI and SWMP description.

The NOI was already submitted and approved in April 2021. The new watershed coordinator started on March 22, 2021, and did not have time to involve the public before submitting the NOI. The public will be notified for their input before subsequent NOI's are submitted.
The City Council members will be briefed on the Stormwater Management Plan. This SWMP will be made available to the public on the City web page starting in December 2022. Public comment will be received during the five year permit term, and updates will be made to the SWMP for the following permit term. A summary of the comments and the responses to those comments during the permit term will be updated in the subsequent SWMP, and can be provided upon request.

ii.) What is your plan to actively involve the public in the development and implementation of your program.

A variety of means to communicate with and educate the public are outlined in Table 2 in Appendix A. Table 2 lists opportunities for the public to comment on the SWMP

during the 5-year permit term. The table also identifies activities in which members of the public can participate in BMP implementation of the SWMP.

iii.) Who are the target audiences for your public involvement program, including a description of the types of ethnic and economic groups engaged. You are encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners' associations, and educational organizations, among others.

The target audience includes employees and citizens. Contractors and individuals using facilities subject to this permit. The City, Delaware County departments and agencies involved in preparation of this SWMP include the City Public Utilities Department, the City Public Works Department, the City Planning Department, the Delaware County Engineer and Delaware Soil and Water Conservation District. Several public involvement activities, including proposed newspaper articles, newsletters and website information, are targeted toward very broad audiences. Other education efforts will include brochures, materials and workshops, aimed at audiences such as businesses, universities, homeowners associations, and contractors.

iv.) What are the types of public involvement activities included in your program. Where appropriate, consider the following types of public involvement activities: citizen representatives on a stormwater management panel, public hearings, working with citizen volunteers willing to educate others about the program, volunteer monitoring or stream/beach clean-up activities.

We incorporate storm drain inlet labeling, household hazardous waste drop-off, pet waste collection stations, rain barrel workshops, rain barrel discount program, annual Olentangy river clean-up, highway/road litter clean-up days, yard waste/leaf litter clean-up days, and Ohio Wesleyan University Student interns and volunteers.

We are working on an Adopt-a-Drain program, led by an OWU student, that would allow residents to "adopt" one or multiple storm drain inlets, in which they would agree to clean off inlets before and after storm events, track the amount and type of debris cleaned off, and become overall more aware of the MS4 system. The goal is to have residents volunteer to become more involved in our MS4 program, and hopefully inspire and teach other residents to do the same.

v.) Who (person or department) is responsible for the overall management and implementation of your storm water public involvement/participation program and, if different, who is responsible for each of the BMPs identified for this program.

See Table 2 of Appendix A for the responsible party for each BMP.

vi.) How you will evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

We will determine the success of this measure by the number of public involvement opportunities presented, and the number of residents who participate in each opportunity.

c. Performance Standards. Your storm water public involvement/participation program, at a minimum, shall include:

i.) Five public involvement activities over the permit term.

Public involvement activities are outlined in Table 2 of Appendix A. They include storm drain inlet labeling, household hazardous waste drop-off, pet waste collection stations, rain barrel workshops, rain barrel discount program, annual Olentangy river clean-up, highway/road litter clean-up days, yard waste/leaf litter clean-up days, and Ohio Wesleyan University Student intern and volunteer activities.

ii.) TMDL Performance Standard. If your small MS4 discharges to a watershed with a USEPA approved TMDL, your storm water public involvement/participation program shall, at a minimum, target each TMDL pollutant identified for your small MS4 at least once to satisfy your minimum of five public involvement activities over the permit term. Single public involvement activities may target multiple pollutants.

Themes 1 and 4 from MCM 1 above address target pollutant TP.
Theme 2 from MCM 1 above addresses target pollutant E.Coli.
Themes 3 and 5 from MCM 1 above address target pollutant TSS.

iii.) Your annual report shall identify each public involvement/participation activity conducted, including a brief description of the activity, the target pollutant(s) and include an estimate of how many people from your jurisdiction participated.

MCM 3: Illicit Discharge Detection and Elimination

a. You shall develop, implement and enforce a program to detect and eliminate illicit discharges, as defined in Part VI of this permit, into your small MS4. For illicit discharges to your small MS4 via an adjacent, outside of your jurisdiction, interconnected MS4, you are only required to immediately inform the neighboring MS4 and inform Ohio EPA in your annual report;

The BMPs, measurable goals, and responsible parties in this Illicit Discharge Detection and Elimination Plan are detailed in Table 3 in Appendix A.

b. You shall develop, if not already completed, 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. Your comprehensive storm sewer system map shall also include your small MS4 system (owned and/or operated by you), including catch basins, pipes, ditches, flood control facilities (retention/detention ponds), post-construction water quality BMPs (public and private) which have been installed to satisfy Ohio permit and/or your local post-construction water quality BMP requirements. Post-construction BMPs shall be identified by type of practice (e.g., wet extended detection basin, bioretention, etc.). Previously existing post-construction BMPs shall be identified by type of practice within five (5) years of the effective date of this permit;

A comprehensive storm sewer system map has been developed, and can be found in the IDDE Plan.

The City implements a city-wide GIS program that maintains many of the data themes needed to continue to update the background mapping for a storm sewer map. The City maintains an inventory list of all culverts within their jurisdiction. A base map has been assembled, consisting of the city background mapping and the culvert inventory. All known outfalls have been mapped. Database was completed at the end of 2013. The map will be updated when new outfalls, including catch basins, pipes, ditches, flood control facilities, and post-construction BMPs are discovered or installed, or as new facilities are approved/added. Locations of home sewage treatment systems (HSTS), stormwater ponds, city-installed best management practices (bioretention cells, permeable pavers, etc.) and new outfalls for dry weather screening are all layers that were added and/or updated in 2020, in addition to the overall system's updates. The SWMP calls for the City to use real time corrected Global Positioning System (GPS) surveying (sub-meter accuracy) to map outfalls. Annual updates will be performed using GPS surveys, and we will record % complete on an annual basis. The City utilizes CityWorks Software to complete GPS surveys and inspections of outfalls.

c. Within five years of when your initial small MS4 general permit coverage was granted, you shall submit the following to Ohio EPA:

> **i.)** A list of all on-site sewage disposal systems located within your jurisdiction and are connected or discharging to your small MS4 (a.k.a., home sewage treatment systems (HSTSs)) including the addresses; and
>
> **ii.)** A storm sewer map showing the location of all HSTSs located within your jurisdiction and are connected or discharging to your small MS4. This map shall include details on the type and size of conduits/ditches in your small MS4 that receive discharges from

HSTSs, as well as the water bodies receiving the discharges from your small MS4.

d. You shall to the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, illicit discharges into your storm sewer system and implement appropriate enforcement procedures and actions;

The City adopted Chapter 926 into our codified ordinances on 6/25/12 (Ordinance No. 12-36). This has been enforced by Public Utilities staff as they are made aware of illicit discharges. This Ordinance can be found on the City's website:
https://library.municode.com/oh/delaware/codes/code_of_ordinances?nodeId=PTNINESTUTPUSECO_TITTHREEUT_CH926ILNORDIILCOSTSESY

e. You shall develop and implement a program to detect and eliminate non-storm water discharges, including illegal dumping, to your system. At a minimum, for household sewage treatment systems (HSTSs), your program shall address or include provisions for:

i. Working with the appropriate Board(s) of County Commissioners, other public officials, local waste water authorities, any other appropriate entity and local board(s) of health to proactively identify residences with existing individual discharging HSTSs that can be legally, feasibly and economically connected to central sewers. At a minimum, the program shall evaluate applying provisions identified by ORC 6117.51 and other applicable State and local laws and/or regulations. At a minimum, this activity should require connection to central sewers for any discharging HSTS that is not operating as designed and intended if feasible, but it does not preclude connection to central sewers of any HSTS if local planning and coordination recommends such;

ii.) Working with local board(s) of health to develop a proactive operation and maintenance program or implement/enhance an existing operation and maintenance program which determines if existing discharging HSTSs are operating as designed and intended and, for those not meeting these criteria, requires elimination, upgrade or replacement of the systems as appropriate;

iii.) Actively investigating the source(s) of contamination in outfalls identified during dry weather screening process. When the contamination source has been identified as discharging HSTS that is not operating as designed and intended, work with the local board(s) of health to determine proper course of action in resolving the non-functioning HSTS with connection to central sewers being preferred alternative, followed by replacing system with a soil absorption system that does not discharge and only allowing a replacement discharging HSTS when no other option is available. For replacement discharging HSTSs that cannot be eliminated through connection to central sewers or installation of soil absorption systems, the property owner must be notified of the requirement to pursue coverage under an appropriate Ohio EPA general NPDES permit; and

iv.) Working with local wastewater authorities, planning agencies or other appropriate agencies involved to evaluate the planned or possible future installation of sewers for areas which contain high densities of discharging HSTSs.

The IDDE Plan is included in Appendix D, and addresses the requirements outlined above.

f. You shall inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste;

g. You shall address the following categories of non-stormwater discharges or flows (i.e., illicit discharges) only if you or Ohio EPA has identified them as significant contributors of pollutants to your small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR §35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated/debrominated/desalinated swimming pool discharges, street wash water, and discharges or flows from non-planned fire-fighting activities (by definition, not an illicit discharge); and

h. You may also develop a list of other similar occasional incidental non-stormwater discharges (e.g., non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-storm water discharges must not be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the small MS4, because of either the nature of the discharges or conditions you have established for allowing these discharges to your small MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive water bodies, BMPs on the wash water, etc.). You must document in your SWMP any local controls or conditions placed on the discharges. You must include a provision prohibiting any individual non-storm water discharge that is determined to be contributing significant amounts of pollutants to your small MS4.

i. Decision process. You shall document your decision process for the development of stormwater illicit discharge detection and elimination program. Your rationale statement shall address both your overall illicit discharge detection and elimination program and the individual BMPs, measurable goals, and responsible persons for your program. The rational statement shall include the following information, at a minimum:

i.) How you will develop a comprehensive storm sewer map. Describe the sources of information you will use for the maps, and how you plan to verify the outfall locations with field surveys. If already completed, describe how you developed this map. Also, describe how your map will be regularly updated.

ii.) The mechanism (ordinance or other regulatory mechanism) you will use to effectively prohibit illicit discharges into the small MS4 and why you chose that mechanism. If you need to develop this mechanism, describe your plan and a schedule to do so. If your ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with your program.
iii.) Your program to detect and address illicit discharges to your system, including discharges from illegal dumping and spills. Your program shall include dry weather field screening for non-storm water flows. Ohio EPA recommends using field tests of selected chemical parameters as indicators of discharge sources. You shall describe the mechanisms and strategies you will implement to ensure outfalls which have previously been dry-weather screened will not have future illicit connections. Your program shall also address on-site sewage disposal systems (including failing on-lot HSTSs and off-lot discharging HSTSs) that flow into your storm drainage system. Your description shall address the following, at a minimum:

1. Procedures for locating priority areas which include areas with higher likelihood of illicit discharges (e.g., areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches;
2. Procedures for tracing the source of an illicit discharge, including the specific techniques you will use to detect the location of the source;
3. Procedures for removing the source of the illicit discharge; and
4. Procedures for program evaluation and assessment.

iv.) Your program to ensure through appropriate enforcement procedures and actions that your illicit discharge ordinance (or other regulatory mechanism) is implemented to the extent allowable under State law.

v.) How you plan to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. Include in your description how this plan will coordinate with your public education minimum measure and your pollution prevention/good housekeeping minimum measure programs.

vi.) Who is responsible for overall management and implementation of your stormwater illicit discharge detection and elimination program and, if different, who is responsible for each of the BMPs identified for this program.

vii.) How you will evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

j. Performance Standards. Your storm water illicit discharge detection and elimination program, at a minimum, shall include:

i.) If you are renewing coverage under OHQ000004, your storm water illicit discharge detection and elimination program shall have already included an initial dry-weather screening of all your stormwater outfalls. If you are obtaining initial coverage under OHQ000004, your storm water illicit discharge detection and elimination program shall include an initial dry-weather screening of all your storm water outfalls within five years of obtaining initial coverage.
ii.) Your program shall establish priorities and specific goals for long-term system-wide surveillance of your small MS4, as well as for specific investigations of outfalls and their tributary area where previous surveillance demonstrates a high likelihood of illicit discharges.
iii.) Data collected each year shall be evaluated and priorities and goals shall be revised annually based on this evaluation.
iv.) Your comprehensive storm sewer system map shall be updated annually.
v.) You shall notify Ohio EPA if any of the following Illicit discharges are detected discharging to your small MS4:
Illicit sanitary cross connections from industrial, commercial or multi-family sources; and leaking or broken sanitary sewer lines that are actively contributing sewage to your small MS4. Notification shall include the location, general description, date, and approximate time the illicit discharge was discovered. Such notification shall be made to the appropriate Ohio EPA district office within twenty-four (24) hours of discovery of the source:
Southeast District Office: sedo24hournpdes@epa.ohio.gov
Southwest District Office: swdo24hournpdes@epa.ohio.gov
Northwest District Office: nwdo24hournpdes@epa.ohio.gov
Northeast District Office: nedo24hournpdes@epa.ohio.gov
Central District Office: cdo24hournpdes@epa.ohio.gov

vi.) TMDL Performance Standard. If your small MS4 discharges to a watershed with a U.S. EPA approved TMDL and any of the following pollutants are identified for your small MS4:
Nutrients (Includes Phosphorus, Nitrogen and Ammonia);
E. coli
Bacteria; or
Dissolved Oxygen and Organic Enrichment
Your illicit discharge detection and elimination program shall include the following performance standard:

1. Include an annual employee training which includes illicit discharge detection and elimination topic(s).

The City will complete an annual training for all relevant field staff to make them aware of illicit discharges and proper protocols for eliminating them.

vii.) Your annual report shall document the following:

a. Total number of MS4 outfalls;

b. Number of outfalls which had dry-weather screening;
c. Number of outfalls where dry-weather flows were identified;
d. Number of outfalls where illicit discharges were identified via dry-weather screening or other methods;
e. Number of outfalls where illicit discharges were eliminated;
f. Number of illicit discharges identified through other methods and the number eliminated;
g. A list of all illicit discharges that have been identified but have yet to be eliminated, including details on the location, an estimate of volume (gpd), the source and the type (continuous/intermittent/one-time), the types of pollutants believed to be present, the receiving surface water and an estimated schedule for elimination;
h. A summary of any storm sewer system mapping updates; and
i. If applicable, summary of activities taken to satisfy your illicit discharge detection and elimination program TMDL performance standard.

MCM 4: Construction Site Storm Water Runoff Control

a. You shall develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of pollutants in storm water discharges from construction activity disturbing less than one acre shall be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If Ohio EPA waives requirements for storm water discharges associated with small construction from a specific site(s), you are not required to enforce your program to reduce pollutant discharges from such site(s). Your program shall include the development and implementation of, at a minimum:

i.) An ordinance or other regulatory mechanism to require erosion and sediment controls, and non-sediment pollutant controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law;
ii.) Requirements for construction site operators to implement appropriate erosion and sediment controls;
iii.) Requirements for 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 potential water quality impacts;
iv.) Procedures for storm water pollution prevention plan review which incorporate consideration of potential water quality impacts;
v.) Procedures for receipt and consideration of information submitted by the public; and
vi.) Procedures for site inspection and enforcement of control measures.

Ordinance 91-21 was passed on 4-8-91 to address erosion and sediment controls and requirements.

Code of Ordinances, Chapter 1115, Water Pollution and Sediment Runoff Control

(https://library.municode.com/oh/delaware/codes/code_of_ordinances?nodeId=PTELEVENPLZOCO_TITTHREEPL_CH1115WAPOSERUCO)

The City has maintained procedures to enforce the erosion and sedimentation control regulations. The City has continued to coordinate the implementation of the ordinance.

The City has refined procedures to enforce the erosion and sedimentation control regulations. The City continues to coordinate the implementation of the regulations. The City's Land Development Manual was updated in 2019 to match OHC000005, and sent to OEPA for review and approval.

The BMPs, measurable goals, and responsible parties in this Construction Site Stormwater Runoff Control Plan are detailed in Table 4 of Appendix A.

b. Decision process. You shall document your decision process for the development of a construction site stormwater control program. Your rationale statement shall address both your overall construction site stormwater control program and the individual BMPs, measurable goals, and responsible persons for your program. The rationale statement shall include the following information, at a minimum:

i.) The mechanism (ordinance or other regulatory mechanism) you will use to require erosion and sediment controls, and non-sediment pollutant controls, at construction sites and why you chose that mechanism. If you need to develop this mechanism, describe your plan and a schedule to do so. If your ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with your SWMP;

ii.) Your requirements for construction site operators to implement appropriate erosion and sediment control BMPs and control waste at construction sites that may cause adverse impacts to water quality. Such waste includes, but is not limited to, discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste;

iii.) Your procedures for pre-construction stormwater pollution prevention plan (SWP3) review which incorporate consideration of potential water quality impacts;

Table 4 of Appendix A indicates goals and schedules for implementing BMPs for construction sites. Included are steps to control concrete truck washout, litter control, construction/building waste material control and access to construction sites. These items have been implemented, and success will continue to be monitored and controls adjusted in subsequent years.

Development projects are reviewed for compliance with stormwater issues by City engineering staff, Planning Department, Public Works, Public Utilities and Delaware County as necessary. Subdivision plans must contain a Stormwater Pollution Prevention Plan. To begin the process, an applicant for subdivision approval submits a preliminary plat. The City Engineer, City Planning Commission, and Delaware County review the plan. The review is driven by the 2018 Ohio EPA Construction Permit, and the City subdivision regulations. The County Board of Health also reviews sewage disposal aspects of the plan at this time. Currently not all development requires a plat. Most non-residential and some residential development does not require platting. In addition, most stormwater and other project utility information is not provided until final platting or submission of the development plan.

The SWMP calls for the City to develop new or updated drainage and stormwater design criteria. This regulation will include items that will be reviewed for each site plan. The City also utilizes a SWPPP checklist in our Engineering Design Manual that can be used to implement ESC regulations. The City tracks plan reviews, field inspections made, violations noted, and corrective actions taken.

iv.) Your procedures for receipt and consideration of information submitted by the public. Consider coordinating this requirement with your public education program;

Concerns regarding construction activities can be received by any city service line, or through city council public comment procedures, and city staff will respond via phone or email to the resident, as well as follow up with the developer for any corrective action.

v.) Your procedures for site inspection and enforcement of control measures, including how you will prioritize sites for inspection;

Document the number of sites inspected, how violations were resolved, and the number of City inspectors CPESC certified each year. Retain a CPESC certified vendor as needed.

vi.) Your program to ensure compliance with your erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms you will use to ensure compliance. Include a written enforcement escalation plan describing your procedures for when you will use certain sanctions. Possible sanctions include nonmonetary penalties (such as a stop work orders), fines, bonding requirements, and/or permit denials for non-compliance;

vii.) Who is responsible for overall management and implementation of your construction site storm water runoff control program and, if different, who is responsible for each of the BMPs identified for this program; and

The City of Delaware Public Works Department has overall responsibility for construction controls. The responsibility for implementation and management of specific BMPs is outlined in Table 4 (Appendix A).

viii.) Describe how you will evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

Table 4 (Appendix A) lists the measurable goals for each of the proposed BMPs. Measurable goals are generally stated in terms of target years for implementation of each BMP, and in quantifying items such as the number of site plan reviews completed or enforcement actions undertaken each year. Items listed for each measurable goal will be reported on annually.

c. Performance Standards. Your construction site stormwater control program, at a minimum, shall include:

i.) Your ordinance or other regulatory mechanism shall, at a minimum, be equivalent with the technical requirements set forth in the Ohio EPA NPDES General Stormwater Permit for Construction Activities (OHC000005) applicable to your permit area. If you had coverage under the previous version of this permit (OHQ000003), you shall revise your ordinance or other regulatory mechanism, if needed, within one (1) year of the effective date of this permit.

ii.) A pre-construction (SWP3) review and approval of all projects from construction activities that result in a land disturbance of greater than or equal to one acre and from construction activities which are part of a larger common plan of development or sale that will disturb one acre or more. An objective tool such as software or checklist shall be used to document each SWP3 review. Documentation of any communications regarding review and plan revisions and any notification to obtain NPDES permit coverage shall be maintained.

iii.) To ensure compliance, all applicable sites shall have an initial inspection. Follow-up inspections shall be on a monthly basis (at least every 31 calendar days). An objective tool such as software or checklist shall be used to document each site inspection to ensure all conditions of OHC000005 are addressed. These inspections are to be conducted by the MS4 or their contracted representative. They are in addition to the self-inspections required of construction site operators under OHC000005.

iv.) TMDL Performance Standard (see Appendix A). If your small MS4 discharges to a

watershed with a U.S. EPA approved TMDL and any of the following pollutants are identified for your small MS4:
Total Suspended Solids (Includes Sediment and Siltation); or
Nutrients (Includes Phosphorus, Nitrogen and Ammonia)
Your construction site stormwater program shall include the following performance standard:

a. At a minimum, applicable construction sites which have the following compliance issues shall be inspected once every 14 calendar days instead of on a monthly basis:

1. Construction activities have started at the site with no SWP3 reviewed and approved by the MS4;
2. Failure to install sediment basin(s) when the SWP3 and/or site drainage clearly indicate as a first step (within 7 days prior to grading and within 7 days of grubbing);
3. Construction activities taking place with no sediment/erosion controls; or
4. Dewatering activities resulting in turbid discharges.
Your inspections can be returned to a monthly basis for the construction site once compliance with the above compliance issues have been addressed and verified.

v.) Your annual report shall document the following:

a. Number and list of applicable sites in your jurisdiction for the reporting year;
b. Number of pre-construction SWP3s reviewed and number approved;
c. Number and average frequency of site inspections;
d. Number of violation letters/reports/notices issued;
e. Number of enforcement actions taken; and
f. Number of complaints (external and internal) received, and number addressed.

MCM 5: Post-Construction Storm Water Management in New Development and Redevelopment

a. You shall develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Your program shall ensure that controls are in place that will prevent or minimize potential water quality impacts;

The BMPs, measurable goals, and responsible parties in this Post-Construction Stormwater Management Plan are detailed in Table 5 in Appendix A.

Integration of Stormwater Management Regulations/Stormwater Drainage Manual

with OEPA's Construction General Permit (CGP)

Selection of post-construction structural BMPs have been integrated with the BMPs required in the CGP. Coordination and design criteria are necessary to align the MS4 and CGP permits. City has developed Phase II compliant post-construction stormwater regulations defining structural and nonstructural measures required to minimize water quantity and quality impacts of stormwater runoff on receiving streams. The regulations affect both new and redevelopment activities within the urbanized portion of the City.

These BMPs can be found in the *City Engineering Design Standards: Land Development Infrastructure Design Manual, Chapters 15-17, and Appendix G: Stormwater Best Management Practices O&M Agreement, as well as in the ODNR Rainwater and Land Development Manual.*

b. You shall develop and implement strategies which include a combination of structural and/or non-structural post-construction runoff controls appropriate for your community;

c. You shall use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law.

Chapter 1115 of the City Code, and associated Ordinance 91-21 address Post-Construction BMPs, which can be found in the *City Engineering Design Standards: Land Development Infrastructure Design Manual, Chapters 15-17.*

d. You shall ensure adequate long-term operation and maintenance of post-construction runoff controls, including provisions for when property changes ownership.

e. Decision process. You shall document your decision process for the development of a postconstruction stormwater management program. Your rationale statement shall address your overall post-construction stormwater management program and the individual BMPs, measurable goals, and responsible persons for your program. The rationale statement shall include the following information, at a minimum:

i.) Your program to address stormwater runoff from new development and redevelopment projects. Include in this description any specific priority areas for this program.

As detailed in Table 5, we will use a combination of planning activities, education, and non-structural and structural practices to address stormwater runoff from new development and redevelopment projects.

ii.) How your program will be specifically tailored for your local community, minimize

potential water quality impacts, and attempt to maintain pre-development runoff conditions.

The majority of land use in the City is residential with large commercial, institutional and industrial developments. Water quality concerns arising from the past history of the area remain, but the focus for this SWMP will be on increased volumes of stormwater runoff as impervious cover increases. These concerns include erosion and sedimentation control, stream bank erosion, increased flooding due to increases in stormwater volume and discharges of sewage and other pollutants into the storm sewer systems.

To address these local concerns the City Public Utilities Department will continue to examine and review the current subdivision regulations, and develop appropriate changes as necessary and appropriate to minimize the impacts of stormwater runoff on receiving streams. The regulations will affect both new and redevelopment activities within the urbanized portion of the City. Ordinances will be modified and/or developed as needed which potentially will require approvals of stormwater management plans from the City that will include a mix of structural and non-structural BMPs.

These BMPs represent significant changes in stormwater management in Central Ohio, education for landowners, developers, planners, engineers, and others. These changes are necessary to support BMP implementation.

iii.) Any non-structural post-construction runoff controls in your program, including, as appropriate: green infrastructure stormwater management techniques, 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 (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure; education programs for developers and the public about project designs that minimize potential water quality impacts; and other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, and source control measures often thought of as good housekeeping, preventive maintenance and spill prevention.

The City will be reviewing their ordinances to adopt appropriate policies and requirements.

Environmental Resources Elements of the Comprehensive Plan (May 10, 2021): Goal E. Objectives, p. 192

- **Encourage Low Impact Development (LID)**
- **Conserve natural areas wherever possible**
- **Minimize the development impact on hydrology**
- **Maintain runoff rates and duration from the site**
- **Implement pollution prevention, proper maintenance and public education programs**
- **Allow green roofs on large format flat roofed buildings**
- **Encouraging sustainable design of ponds or other water features**
- **Integrating bioswales, rain gardens, or other stormwater retention interventions**
- **Minimize impervious surfaces**
- **Discourage development of significant slopes**
- **Mitigate development on poorly drained soils**
- **Prohibit development in the floodplain**
- **Preserve trees and reforest areas with tree buffers**
- **Enhance greenspace**
- **Buffer waterways**
- **Allow more compact development and thereby limit sprawl**
- **Promote the establishment of conservation easements within the 100-year floodplain**
- **Promote re-forested buffers of 120 feet in width along the main stem of the Olentangy River**
- **Promote forested buffers of 60 and 30 feet in width along major and minor water tributaries respectively**
- **Propose developing an environmental analysis map for all new development**

iv.) Any structural post-construction runoff controls in your program, including, as appropriate: green infrastructure stormwater management techniques, 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.

v.) The mechanisms (ordinance or other regulatory mechanisms) you will use to address post-construction runoff from new developments and redevelopments and why you chose the mechanism(s). If you need to develop a mechanism, describe your plan and a schedule to do so. If your ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with your program.

Design Manual Chapters 15-17 address stormwater quality and quantity requirements.

vi.) How you will ensure the long-term operation and maintenance (O&M) of any implemented or installed post-construction runoff controls. Options to help ensure that future O&M responsibilities are clearly identified and enforceable include an agreement between you and another entity such as the post-development landowners or regional authorities.

Table 5 indicates City's plans to develop workshops to educate developers, contractors, officials and the general public regarding post-construction stormwater controls.

Design Manual Chapters 15-17 address stormwater quality and quantity requirements.

O&M agreements are required for all new development projects.

vii. Who is responsible for overall management and implementation of your post-construction stormwater management program and, if different, who is responsible for each of the BMPs identified for this program.

The City Public Utilities Department and City Public Works Department are responsible for management and implementation of our post-construction management program. The City's Land Development Manual mirrors the Post-Construction requirements in OEPAs Construction General Permit. The objective of the SWMP is to coordinate requirements of both permits. Evaluation of Erosion and Sediment Control design criteria should include review of current design criteria, review of referenced manuals currently used by the City and current erosion and sedimentation policies and procedures. Updates should be made every five years, or when the OEPA Construction Permit is renewed.

viii.) How you will evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

f. Performance Standards. Your post-construction stormwater management program, at a minimum, shall include:

i.) Your ordinance or other regulatory mechanism shall, at a minimum, be equivalent with the technical requirements set forth in OHC000005 applicable to your permit area. It shall require notification and approval of modifications to post-construction stormwater runoff controls that occur after your initial SWP3 approvals. If you had coverage under the previous version of this permit (OHQ000003), you shall revise your

ordinance or other regulatory mechanism, if needed, within one (1) year of the effective date of this permit.

ii.) A pre-construction SWP3 review and approval of all projects from construction activities that result in a land disturbance of greater than or equal to one acre, and from construction activities which are part of a larger common plan of development or sale that will disturb one acre or more, to ensure that required post-construction controls are designed per requirements. An objective tool such as software or checklist shall be used to document each SWP3 review. Documentation of any communications regarding review and plan revisions shall be maintained.

iii.) These applicable sites shall be inspected to ensure that controls are installed per requirements. An objective tool such as software or checklist shall be used to document each site inspection to ensure all conditions of OHC000005 are addressed.

iv.) Your program shall also ensure that long-term O&M plans are developed and agreements in place for all applicable sites, including after changes of ownership. Your operation and maintenance program shall ensure that private and public post-construction runoff controls are being maintained per existing long-term O&M plans, agreements and local ordinances or other regulatory mechanisms. You shall maintain a copy of the long-term O&M plans and agreements provided during construction and document long-term O&M inspections. Your program shall include, at a minimum, one on-site inspection by you or a third party of each post-construction runoff control during this permit term.

v.) TMDL Performance Standard (see Appendix A). If your small MS4 discharges to a watershed with a U.S. EPA approved TMDL and any of the following pollutants are identified for your small MS4:

Total Suspended Solids (Includes Sediment and Siltation); or

Nutrients (Includes Phosphorus, Nitrogen and Ammonia)

Your post-construction storm water management program shall provide:

a. In addition to Parts III.B.1.c and III.B.2.c, an educational opportunity to contractors, SWP3 designers, and/or employees on OHC000005 Table 4b practices and/or other green infrastructure practices during the permit term. In addition, your program shall include, at a minimum, one of the following performance standards during the permit term:

b. Retrofit one (1) existing storm water practice that solely provides a peak discharge function to meet the performance standard for an extended detention post-construction practice in accordance with OHC000005 Table 4a or 4b; or

c. Perform restoration of at least three hundred linear feet of channelized stream where natural channel stability and floodplain restoration will reduce stream erosion; or

d. Update your ordinance or other regulatory mechanism to require OHC000005 Table 4b practices and/or other green infrastructure practices where feasible; or

e. Install one (1) or more OHC000005 Table 4b practices to treat a minimum of 1 acre of existing impervious area developed prior to 2003.
These TMDL performance standards may be implemented outside your jurisdictional boundary but shall be implemented within the identified TMDL Project watershed.

vi.) Your annual report shall document the following:

a. Number of applicable sites in your jurisdiction requiring post-construction controls for the reporting year;
b. Number of pre-construction SWP3 reviews and approvals for post-construction runoff controls;
c. Number of inspections verifying that post-construction runoff controls were built per requirements;
d. Number of enforcement actions taken for failure to adequately install postconstruction runoff controls and the number of enforcement actions taken for failure to maintain;
e. Number of long-term O&M plans developed and agreements in place for postconstruction runoff controls;
f. Number of long-term O&M inspections performed on post-construction controls (number performed by MS4 and number performed privately); and
g. If applicable, summary of activities taken to satisfy your post-construction stormwater management program TMDL performance standard.

MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations

a. You shall develop and implement an O&M program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations;

b. Using training materials that are available from Ohio EPA or other organizations, your program shall 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 storm water system maintenance; and

c. You shall include a list of industrial facilities you
NPDES Industrial Storm Water General Permit (OHR000006) or individual NPDES permits for discharges of storm water associated with industrial activity that ultimately discharge to your small MS4. Include the Ohio permit number or a copy of the Industrial NOI for each facility. For your municipal facilities that conduct activities described in 40 CFR 122.26(b)(14) that are not required to obtain Industrial Storm Water General Permit coverage, including vehicle maintenance facilities, bus terminals, composting facilities, impoundment lots and waste transfer stations, a Storm Water Pollution Prevention Plan (SWPPP) shall be developed and implemented in accordance with the SWP3 requirements of OHR000006.

d. Decision process. You shall document your decision process for the development of a pollution prevention/good housekeeping program for municipal operations. Your rationale statement shall address both your overall pollution prevention/good housekeeping program and the individual BMPs, measurable goals, and responsible persons for your program. The rationale statement shall include the following information, at a minimum:

i.) Your operation and maintenance program to prevent or reduce pollutant runoff from your municipal operations. Your program shall specifically list the municipal operations that are impacted by this O&M program.

ii.)Any government employee training program you will use 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 storm water system maintenance. Describe any existing, available materials you plan to use. Describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum measure.

iii.) Your program description shall specifically address the following areas:

1. Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to your small MS4.

2. Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand handling and storage locations and snow disposal areas you operate. A description of the materials used for roadway and municipal parking lot winterization (use of salt, sand, bottom ash, etc. or combination thereof), associated application rates, and the rationale for the selected application rates shall be included. Also identify controls or practices to be used for reducing or eliminating discharges of pollutants resulting from roadway and municipal parking lot winterization activities.

3. Procedures for the proper management and disposal of waste removed from your small MS4 and your municipal operations, including dredge spoil, accumulated sediments, floatables, street sweepings/catch basin cleanings and other debris.

4. Procedures to 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 or practices.

iv.) Who is responsible for overall management and implementation of your pollution prevention/good housekeeping program and, if different, who is responsible for each of the BMPs identified for this program.

v.) How you will evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

The BMPs, measurable goals, and responsible parties in this SWMP are outlined in Table 6. Table 6 indicates the operations the City owns and maintains. In general, the City operates facilities that include wastewater facilities, water facilities, parks and recreation areas, maintenance garages, buildings for offices and meetings, and storage areas for equipment and materials. A schedule was developed such that operation and maintenance practices will be reviewed for effectiveness at the end of each 5 year permit cycle. Appropriate BMPs are already being implemented, and will continue to be implemented during each year of the permit term.

The City Water Treatment Plant and Public Works facilities complete quarterly inspections surrounding stormwater inlets to ensure pollutants are not entering the stormwater system. The watershed coordinator keeps records of these quarterly reports.

e. Performance Standards. Your pollution prevention/good housekeeping program, at a minimum, shall include:

i.) An annual employee training.

The Public Utilities Department will implement an annual good housekeeping training for Public Utilities and Public Works staff, and proper procedures will be followed.

ii.) Your O&M program shall include appropriate documented procedures, controls, maintenance schedules and recordkeeping to address Part III.B.6.d.iii of this permit.

iii.) Your salt piles shall be covered with no run-on and subsequent run-off of salt. All tanks of brine or other liquid road treatments shall have secondary containment or alternatively bollard or barrier protection. This performance standard shall be completed no later than two (2) years after the effective date of this permit for small MS4s renewing coverage under this permit.

De-icing materials are currently stored under cover and in a manner that prohibits drainage to surface water. The City uses an average of 1600 tons of mixed salt (66% salt and 33% grit) per season. Salt-brine is stored and used to pre-treat roadways surfaces. City salt applications are controlled by strict application guidelines to minimize amount and still maintain motorist safety. Salt is stored in covered domes at City maintenance facilities. Also, grit and beet juice are used to reduce amount of salt used on roadways depending upon temperature. Salt storage systems minimizes contamination of surface and groundwater. Application rates are established to use road salt efficiently while maintaining motorist safety.

iv.) For areas of soil disturbance associated with ditch/MS4 maintenance caused by the small MS4, soil stabilization shall, at a minimum, be initiated in accordance with the time frames specified in the following table:

Ditch/MS4 Maintenance Areas Time Frame to Initiate Soil Stabilization
Not within 50 feet of a surface water of the State
Within 7 days of reaching final grade or within the first 7 days if a disturbed area will remain inactive for over 14 days.
Within 50 feet of a surface water of the State
Within 2 days of reaching final grade or within 2 days if the area is to remain inactive for over 14 days.
Implementation of this performance standard shall commence no later than two (2) years after the effective date of this permit for small MS4s renewing coverage under this permit.
vi.) TMDL Performance Standard (see Appendix A). If your small MS4 discharges to a watershed with a U.S. EPA approved TMDL and any of the following pollutants are identified for your small MS4:
Total Suspended Solids (Includes Sediment and Siltation);
Nutrients (Includes Phosphorus, Nitrogen and Ammonia);
E. coli
Bacteria;
Metals; or
Dissolved Oxygen and Organic Enrichment
Your pollution prevention/good housekeeping program shall include, at a minimum, one of the following performance standards. Implementation of this permit requirement shall commence no later than two (2) years after the effective date of this permit for small MS4s renewing coverage under this permit.

1. Develop and implement a street sweeping program with proper debris management and disposal. Your program shall document debris collected to prioritize areas to sweep and/or document lane miles swept. At a minimum, sweeping shall occur on curbed streets two times per year; or

A street sweeping program is in place, carried out by the Public Works Department twice per year.

2. Develop and implement a catch basin cleaning program with proper debris management and disposal. Your program shall document debris collected to prioritize areas to clean. At a minimum, catch basins shall be scheduled to be cleaned once every five years; or

City storm drains, catch basins, and ditches are cleaned to minimize clogging of catch basins. Storm drains and catch basins are inspected and cleaned out once a year by the Public Works Department.

3. Develop and implement a leaf/yard waste collection program.

Leaf/yard waste is collected twice per year by the Public Works Department.

vii.) Your annual report shall document the following:
a. Summary of employee training program(s) implemented, listing topics, target pollutants and the number of employees that attended each training;
b. List of municipal facilities subject to your program with number of facilities inspected and the frequency of such inspections;
c. Document the amounts of wastes properly disposed from your small MS4 and your municipal operations, including the disposal location;
d. Document whether your road salt storage is covered, tons of salt used, gallons of brine used (and concentration), lane miles treated and measures taken to minimize usage;
e. Document the gallons used of pesticides and herbicides and measures taken to minimize usage;
f. Document the pounds used of fertilizer and measures taken to minimize usage;
g. Document the amount of street sweeping and catch basin cleaning material collected and properly disposed, including disposal location;
h. Summarize any new or existing flood management projects that were assessed for possible impacts on water quality; and
i. If applicable, summary of activities taken to satisfy your pollution prevention good housekeeping program TMDL performance standard.

The BMPs, measurable goals, and responsible parties in this SWMP are outlined in Table 6.