



**CITY OF CANAL WINCHESTER
STORM WATER MANAGEMENT PLAN**

**Permit Period 2014-2019
Ohio Environmental Protection Agency Issued Permit No.: 4GQ10005*CG**

October 3, 2016

Table of Contents

Certification.....	ii
Executive Summary	1
Legal Authority	1
Permit Coverage Area	1
Reporting Requirements	2
Storm Water Management Plan (SWMP).....	2
MCM 1: Public Education/Outreach	4
MCM 2: Public Participation/Involvement	9
MCM 3: Illicit Discharge Detection and Elimination	11
MCM 4: Construction Site Runoff Control	15
MCM 5: Post Construction Storm Water Management in New Development/ Redevelopment.....	19
MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations	22

FIGURES

Figure 1- Table of Organization

APPENDICES

Appendix A - City of Canal Winchester City MS4 Map
Appendix B – OEPA NPDES Permit Coverage Approval Letter
Appendix C – Illicit Discharge Detection and Elimination Plan

City of Canal Winchester

Storm Water Management Plan Certification

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



Michael Ebert
Mayor
City of Canal Winchester, Ohio

Executive Summary

The City of Canal Winchester is required to prepare a Storm Water Management Plan (SWMP) in accordance with 40 CFR 123.25 and Ohio law (OAC 3745-39). This document outlines the City's program to develop, implement and enforce a storm water management program designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act (CWA) in accordance with the Ohio Environmental Protection Agency (OEPA) National Pollutant Discharge Elimination System (NPDES) Phase II program. The SWMP addresses the Six Minimum Control Measures as required by state regulations. The plan also identifies the City's legal authority to implement the requirements of the OEPA's general permit, OHQ000003, in effect from 2014-2019.

The overall goal of the plan is to protect water quality by reducing or preventing pollutants from mixing with stormwater runoff and flowing into the City's owned and operated small municipal storm sewer system (MS4) and into waterways. A MS4 is a conveyance or system of conveyances that are owned and operated by the City that are designed or used for the collecting and conveying solely stormwater into surface water of the state.

Components of the overall MS4 system consist of the following:

- Storm sewer pipe and catch basins
- Stormwater outfalls
- Roadway curbs and gutters
- Ditches and man-made channels
- Post-construction water quality Best Management Practices

A copy of the City's MS4 map is provided within Appendix A.

Legal Authority

The Charter and Code of the City of Canal Winchester provides the City with the authority to control the quality of separate storm water discharge to its MS4. The City of Canal Winchester has both the fiscal resources and legal authority to fully implement its storm water management plan. The City has adopted this Storm Water Management Plan for the permitting period, 2014-2019. A copy of the OEPA approval letter are provided within Appendix B.

Permit Coverage Area

The SWMP traverses all areas within the incorporated City limits. Canal Winchester has an estimated population of 7,393 (US Census Bureau-Population Estimates, 2012) and encompasses approximately 7.6 square miles.

The City is largely residential, with concentrations of commercial and industrial areas along main thoroughfares such as Gender Road and U.S. Route 33. The industrial parks generally include warehouse-type activities, rather than large-scale manufacturing facilities.

Reporting Requirements

The City of Canal Winchester will submit its required update annually during the permit cycle to the OEPA. The report will include the status of compliance with the permit conditions, an assessment of the appropriateness of the best management practices (BMPs) and progress towards achieving measurable goals for each of the Six Minimum Control Measures.

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

Storm Water Management Plan (SWMP)

The SWMP outlines the Six Minimum Control Measures that are expected to result in reductions in the adverse effects of storm water discharged by the City of Canal Winchester.

The City is located within the Walnut Creek watershed (Hydrologic Unit Code (HUC) 05060001 180). These assessment units are very large, and do not reflect individual tributaries serving Canal Winchester. Walnut Creek and its smaller tributary, Tussing-Bachman Ditch, flow through Canal Winchester. The locations of the streams within the City are identified on the MS4 map. A copy of the City's MS4 map is provided within Appendix A.

Where applicable, The OEPA requires Best Management Practices (BMPs) to be selected as part of the overall SWMP to address US EPA approved Total Maximum Daily Load (TMDL) recommendations for identified water quality problems associated with MS4 discharges within the City's MS4 watershed. TMDLs identify and evaluate water quality problems in impaired water bodies and propose solutions to bring those waters into attainment.

The Walnut Creek TMDL report was approved by U.S. EPA on May 4, 2010. TMDLs were calculated for fecal coliform bacteria, habitat and sedimentation.

The City has incorporated various goals and proposed Best Management Practices within the SWMP to assist with addressing the stream impairments as identified within the TMDL report. The following Best Management Practices are a few examples that have been incorporated into the plan:

- Green infrastructure workshops;
- Home sewage treatment system maintenance education;
- The development, adoption and implementation of an illicit discharge detection and elimination plan;
- Review of Storm Water Pollution Prevention Plans and Operation and Maintenance Plans associated with proposed site improvements;
- Construction site inspections;
- Stormwater outfall dry weather screenings;
- Stream corridor protection requirements;
- and the removal of pollutants from the City's maintained MS4.

The Six Minimum Control Measures (MCMs) outlined within the plan are:

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

Each measure is addressed separately within the plan. Generally, the plan identifies the strategies, existing programs and proposed programs for each minimum control measure. A table of organization outlines who will be responsible for completing each Minimum Control Measure under this permit (Figure 1).

MCM 1: Public Education/Outreach

The City of Canal Winchester has chosen a mix of BMPs for public education and outreach. This control measure will target homeowners, commercial property owners, and the general public (those visiting Canal Winchester and non-homeowners).

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

Public education and outreach programming must target at least five different storm water themes or messages over the permit term and reach 50% of the City's total population. At a minimum, at least one theme or message must be targeted to the development community. The City must report each mechanism used to educate the community, including each storm water theme. The City must also report the audience targeted and estimate how many people were reached through each mechanism.

Education Materials and Strategies

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

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

Reaching Diverse Audiences

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

Education Themes and Target Pollutant Sources

The education materials and strategies that the City will implement over the permit period will cover a variety of themes or messages, including but not limited to the following:

1. Storm water management associated with residential use;
2. Green infrastructure;
3. Development of school curriculums for grades K-12 regarding storm water pollution prevention;
4. Pollution prevention at construction sites;
5. Home sewage treatment systems maintenance and operations;
6. Pollution prevention geared towards small restaurants.

The distribution of educational material addressing the abovementioned themes will assist with stormwater pollution prevention and improving water quality by targeting the following pollutant sources:

1. Sediment within construction site runoff;
2. Fertilizers/pesticides;
3. Home sewage treatment system discharges;
4. Oils/greases;
5. Litter and other debris common within urban areas.

Minimum Control Measure Evaluation

To evaluate the success of this portion of the overall program, the City will annually review the number of people reached by the outreach efforts and review the tracking of water quality related concerns and complaints received by the City from the public. The program can be modified based upon the results of the annual review and determine if additional means of outreach are needed to target specific audiences or pollutants resulting from the concerns and complaints received.

The City's Director of Public Works, Events and Community Coordinator, and the Franklin Soil and Water Conservation District (FSWCD) are responsible for the overall management and implementation of the storm water public education/ outreach program.

MCM 1: Public Education/Outreach Measurable Goals

- Continue to use existing and develop new outreach mechanisms that provide stormwater pollution prevention education to the target audiences in addressing the chosen themes. Track the number of people reached on an annual basis based upon the distribution of educational material and the number of participants and public events.
- Distribute education material to at least 50% of City’s population over the permit term.
- Annually, determine the effectiveness of the storm water education program and modify as necessary to ensure that the target audiences are being appropriately reached and themes addressed.

BMP	Strategy
Existing Programs	<p>The City will continue with existing programs that have a positive effect on storm water education.</p> <ul style="list-style-type: none"> • Maintain use of the City Hall for educational materials. • Annually, using general literature from the Franklin County Board of Health, educate homeowners with on-site sewage systems on the proper care and maintenance of their system. • Continue to work with the local school system to introduce curriculum addressing stormwater impacts • Continue to team with the Franklin Soil and Water Conservation District (FSWCD) and provide educational workshops. • Distribute brochures and publish at least one article per year addressing one of the stormwater pollution prevention themes within a City publication. Identify the number of brochures/articles distributed and the method of distribution. <p>Themes/messages to be addressed over the permit period:</p> <ol style="list-style-type: none"> 1. Storm water management associated with residential use; 2. Green infrastructure; 3. Development of school curriculums for grades K-12 regarding storm water pollution prevention; 4. Pollution prevention at construction sites; 5. Home sewage treatment systems maintenance and operations; 6. Pollution prevention geared towards small restaurants.

BMP	Strategy
Storm Water Management Plan (SWMP) Updates	<p>The City will review the SWMP that was prepared under the previous OEPA permit coverage term and update the plan to meet the current OEPA permit requirements and incorporate feedback received from the public.</p> <ul style="list-style-type: none"> The City will review the proposed updated plan at a public meeting and/or post the plan on the City's website for public review and provide means for the City to receive and evaluate public comments.
Website	<p>Continue to update the City's current stormwater management website to incorporate additional stormwater education to the general public.</p> <ul style="list-style-type: none"> Update the current website to incorporate additional stormwater pollution prevention and water quality educational information. Post a copy of the City's SWMP and consider including copies of OEPA submitted annual reports. Provide a copy or link to the City's MS4 map. <p>http://www.canalwinchesterohio.gov/167/Storm-Water</p>
Development Community Education	<p>Continue to provide educational material to present to developers and contractors regarding construction site stormwater management by means of posting the material on the City's Storm Water and NPDES websites.</p> <ul style="list-style-type: none"> Provide links to the OEPA surface water website and construction site runoff permitting requirements Provide links to OEPA construction stormwater runoff related forms <p>http://oh-canalwinchester.civicplus.com/138/NPDES</p> <ul style="list-style-type: none"> Provide links to the City's Stormwater Design Manual and Stormwater Management Code to assist designers in the development of Storm Water Pollution Prevention Plans (SWP3s) <p>http://www.canalwinchesterohio.gov/167/Storm-Water</p>

BMP	Strategy
Walnut Creek Monitoring Program	<p>The City will continue to implement a monitoring program of Walnut Creek. The program consists of a variety of activities including stream cleanups, urban forestation projects and educational outreach. The City additionally monitors, records and compares Total Suspended Solids (TSS) for Walnut creek and records stream life at four sites. Information obtained through the monitoring of Walnut Creek is publicized via the Facebook Page 'The Walnut Creek Report'. The site provides a means of publicizing data with the potential to reach a large number of people. The social network platform allows and encourages public interaction via post and comments.</p> <ul style="list-style-type: none"> The City has posted a link to the report on the City's stormwater website http://www.canalwinchester.org/167/Storm-Water

MCM 2: Public Participation/Involvement

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

The City's public involvement/participation programming must include at least five (5) public involvement activities over the permit term (one per permit year). Documentation of the number of people participating in events and a brief description of each activity is required by the permit. The public events will be chosen to address the stormwater themes as identified within the Public Education/Outreach Minimum Control Measure.

Strategies

The program for the City of Canal Winchester is predicated largely on increasing awareness of how the City's MS4 functions through passive information dissemination. Since awareness has been raised, the program will be enhanced to include more active public participation. Given that, the City will reinforce existing methods for receiving information from the public, identify opportunities for civic groups to participate in the process.

As stated earlier, the target audience for the program can be divided into three general categories: residential, commercial and general public. These categories then lend themselves to further segregation. The residential category has been divided into school age children and adults, new development (through developers) and existing. The commercial properties include small, medium and large properties, as well as type (restaurant and retail, for example).

Minimum Control Measure Evaluation

To evaluate the success of this portion of the overall program, the City will annually review the number of people that participate in the public events and review the tracking of water quality related concerns and complaints received by the City from the public. The program can be modified based upon the results of the annual review and determine if additional public events are needed to target specific audiences or stormwater themes.

The City's Director of Public Works, Events and Community Coordinator, and the Franklin Soil and Water Conservation District (FSWCD) are responsible for the overall management and implementation of the storm water public involvement/outreach program.

MCM 2: Public Participation/Involvement Measurable Goals

- Provide at least five public involvement activities over the permit term in addressing the target audience and stormwater themes as identified within the Public Education/Outreach Minimum Control Measure. Track the number of people reached on an annual basis based upon the number of participants and public events.
- Annually, determine the effectiveness of the storm water public participation/involvement program and modify as necessary to ensure that the target audiences are being appropriately reached.

BMP	Strategy
Existing Programs	<p>The City will continue with existing programs that have a positive effect on stormwater pollution prevention.</p> <ul style="list-style-type: none"> • Continue to participate in established public involvement events on an annual basis such as community stream cleanups, hazardous waste drop-offs and tree giveaways. • Continue to participate at Arbor Day celebration events with the Canal Winchester School District and incorporate a stormwater related educational opportunity. • Continue to work with the FSWCD and provide stormwater quality and pollution prevention workshops that the public can attend, such as rain gardens and rain barrel workshops. • Continue to track number of requests made by the public on the City maintained website regarding storm water concerns. Track resolutions completed. <p>City Request Tracker: http://www.canalwinchesterohio.gov/requesttracker.aspx</p>
Storm Water Management Plan (SWMP) Updates	<p>The City will review the SWMP that was prepared under the previous OEPA permit coverage term and update the plan to meet the current OEPA permit requirements and incorporate feedback received from the public.</p> <ul style="list-style-type: none"> • The City will review the proposed updated plan at a public meeting and/or post the plan on the City's website for public review and provide means for the City to receive and evaluate public comments.

MCM 3: Illicit Discharge Detection and Elimination

The City of Canal Winchester has minimized the potential for illicit discharges to the storm water system through development of an ordinance and abatement program. The water quality assessment of creeks and waterways within the City has been largely completed by FSWCD and all outfall screening information was added to the City's geographic information system (GIS).

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

The previous OEPA permit required that the City's program must include or have included an initial dry-weather screening of all storm water outfalls over the permit term. The program must establish priorities and specific goals for long-term system-wide surveillance of its MS4, as well as for specific investigations of outfalls and their tributary area where previous surveillance demonstrates a high likelihood of illicit discharges. Data collected each year will be evaluated and priorities and goals will be revised annually based on this evaluation. The City's comprehensive storm sewer system map must be updated annually, as needed, including catch basins, pipes, ditches, flood control facilities (retention/detention ponds), post-construction water quality BMPs and private post-construction water quality BMPs which have been installed to satisfy Ohio EPA's NPDES Construction Storm Water general permit and/or local post-construction water quality BMP requirements.

Strategies

The City has completed a GIS map for the urbanized area, including the incorporation of storm water system information. In 2007, FSWCD prepared an outfall map for the City and also completed the mapping of home sewage treatment systems (HSTS) within the City. The City's GIS Department and the City's Engineer will maintain the map. The City coordinated with the Franklin County Board of Health to identify HSTS within the incorporated City limits and added this information to the GIS product. The City will continue to coordinate with FSWCD to conduct dry weather screening of outfalls over the permit term.

Chapter 941 of the City's Code regulates storm water management. The control of illicit discharges is part of the City Code 941.031. This section requires that with certain exceptions, only discharge composed entirely of storm water is permitted in the storm sewers.

City Code 941.031: <http://www.canalwinchesterohio.gov/167/Storm-Water>

Minimum Control Measure Evaluation

To evaluate the success of this portion of the overall program, the City will review water quality concerns as reported on the City's maintained website and the results of the stormwater outfall dry weather screenings and compare the results to the screenings conducted under the previous SWMP. The program can be modified based upon the results of the review and determine if additional public education mechanisms are needed to target specific audiences or stormwater pollutants.

The City's Water Reclamation Manager and Streets Manager are responsible for the implementation of the illicit discharge detection and elimination program.

MCM 3: Illicit Discharge Detection and Elimination Measurable Goals

- Develop and implement an Illicit Discharge Detection and Elimination (IDDE) plan.
- Conduct stormwater outfall dry weather screenings and address noted illicit discharges per the prepared IDDE plan.
- Continue to provide means for the public to contact the City to report illicit discharge concerns and investigate and address the concerns per the IDDE plan.

BMP	Strategy
<p>Illicit Discharge Detection and Elimination (IDDE) Plan</p>	<p>The City will finalize an IDDE plan</p> <ul style="list-style-type: none"> • The plan will identify means to detect and eliminate illicit discharges into the City's MS4 system. • Training will be provide to City staff associated with the implementation of the plan. • The City will continue to work with the County Board of Health with the identification of failing home sewage treatment systems. <p>A copy of the IDDE plan is provided within Appendix C.</p>

BMP	Strategy
MS4 Outfall Dry Weather Screening	<p>The City will coordinate with FSWCD to conduct MS4 outfall dry weather screening services</p> <ul style="list-style-type: none"> • Conduct dry-weather screening of necessary outfalls and investigate areas of potential HSTS failure, as identified by FSWCD during their stream assessments within the City. • Determine the source of the illicit discharges and notify the responsible parties and required elimination actions.
MS4 Mapping Updates	<p>The City will continue to update the current MS4 map to ensure the required OEPA mapping components are mapped and recent MS4 improvements are added. An up-to-date map will assist the City with tracing sources of noted illicit discharges into the MS4 system and investigate surface water outfall locations.</p> <p>The MS4 map will consist of the following components:</p> <ul style="list-style-type: none"> • Storm pipes • Catch basins • Ditches • Retention/Detention basins • Public/Private water quality Best Management Practices • Stormwater outfall locations • Surface water locations and names
Public Reporting Mechanism	<p>The Request Tracker was created to aid the City in addressing the needs of its citizens. The system is capable of receiving a request for service, including illicit discharge concerns, tracking work associated with a service request, and notifying citizens when a service request has been completed.</p> <ul style="list-style-type: none"> • Continue to track number of requests made by the public regarding illicit discharge concerns and rack resolutions completed. <p>City Request Tracker: http://www.canalwinchesterohio.gov/requesttracker.aspx</p>

BMP	Strategy
<p>Home Sewage Treatment System (HSTS) Maintenance Education</p>	<p>The City will continue to work with Franklin County Public Health with the identification of failing home sewage treatment systems.</p> <ul style="list-style-type: none"> • To the City's knowledge, all septic tank systems drain to privately maintained stormwater conveyance systems. • The City will continue to conduct dry weather screenings at stormwater outfall locations and work with the Board of Health to eliminate noted illicit discharges as a result of failing HSTS's.

MCM 4: Construction Site Storm Water Runoff Control

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

The permit requires that the City's program include pre-construction storm water pollution prevention plan review of all projects from construction activities that result in a land disturbance of greater than or equal to one acre. To ensure compliance, these applicable sites must be initially inspected. The frequency of follow-up inspections is on a minimum monthly basis unless the City's documents its procedures for prioritizing inspections, such as location to a waterway, amount of disturbed area, compliance of site, etc. These performance standards must be satisfied within two years of when coverage under this permit was granted.

Strategies

The City relies on a two-fold approach to construction site runoff control. First, the City reviews the erosion and sediment control plans for all submitted construction drawings within the City per the requirements outlined within Section 1115.10 of the City Code. Second, Section 1117.05 of the City Code provides for inspection of all construction in the City. Construction must be completed to the satisfaction of the inspector. The inspector may stop construction or request changes be made to comply with City standards, i.e. enforcement. The website has been updated to reflect the ability to receive information from the general public.

Minimum Control Measure Evaluation

To evaluate the success of this portion of the overall program, the City will track the number of SWP3s reviewed and site inspections conducted. The program can be modified based upon the results of the weekly inspections and determine if additional education mechanisms need established to present to the development community or enforcement procedures are needed in addressing construction site stormwater runoff.

The Construction Services Administrator is responsible for the overall management and implementation of the construction site storm water runoff control program.

MCM 4: Construction Site Storm Water Runoff Control Measurable Goals

- Review SWP3s that are submitted to the City to ensure compliance with the OEPA's General Permit associated with construction site discharges.
- Review construction site stormwater management requirements with developers and contractors at preconstruction meetings to ensure they understand their roles and responsibilities during the construction of the site improvements.
- Inspect all active construction projects within the City on a minimum weekly basis.
- Continue to provide means for the public to contact the City to report construction site runoff concerns and investigate and address the concerns.

BMP	Strategy
<p>Codified Ordinance Updates</p>	<p>The City will review SWP3 and site inspection related City Code to specifically address compliance with the most current version of Ohio EPA's Construction Storm Water Permit and update enforcement protocols to address short term enforcement to ensure compliance with the General Construction Storm Water Permit.</p> <ul style="list-style-type: none"> • Section 1115.10 Erosion and Sedimentation Control • Section 1117.05 Construction Inspection Process

BMP	Strategy
Development Community Education	<p>Continue to provide educational material to present to developers and contractors regarding construction site stormwater management by means of posting the material on the City's Storm Water and NPDES websites.</p> <ul style="list-style-type: none"> • Provide links to the OEPA surface water website and construction site runoff permitting requirements • Provide links to OEPA construction stormwater runoff related forms <p>http://oh-canalwinchester.civicplus.com/138/NPDES</p> <ul style="list-style-type: none"> • Provide links to the City's Stormwater Design Manual and Stormwater Management Code to assist designers in the development of Storm Water Pollution Prevention Plans (SWP3s) <p>http://www.canalwinchesterohio.gov/167/Storm-Water</p>
SWP3 Review	<p>The City will require the preparation and submittal of SWP3s for site improvement projects that will result in land disturbing activities of 1 acre or more.</p> <ul style="list-style-type: none"> • Review SWP3s that are submitted to the City to ensure compliance with the Section 1115.10 of the City Code and the OEPA's General Permit. <p>http://whdrane.conwaygreene.com/NXT/gateway.dll?f=templates&fn=default.htm&vid=whdrane:OHCanalwinchester</p>
Preconstruction Meetings	<p>The City will notify developers and contractors of their required roles and responsibilities during the construction of the site improvements.</p> <ul style="list-style-type: none"> • Notice of Intent (NOI), NOI co-permittee and Individual Lot NOI submittal requirements • Weekly inspection requirements • BMP installation and maintenance requirements

BMP	Strategy
Erosion & Sediment Control Inspections	<p>The City will conduct weekly erosion and sediment control site inspections for all active public and private projects.</p> <ul style="list-style-type: none"> The City will prepare inspection reports and provide copies to the developers/contractors noting violations and required corrective actions.
Public Reporting Mechanism	<p>The Request Tracker was created to aid the City in addressing the needs of its citizens. The system is capable of receiving a request for service, including construction site runoff concerns, tracking work associated with a service request, and notifying citizens when a service request has been completed.</p> <ul style="list-style-type: none"> Continue to track number of requests made by the public regarding construction site runoff concerns and track resolutions completed. <p>City Request Tracker: http://www.canalwinchesterohio.gov/requesttracker.aspx</p>

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

The City addresses the post-construction storm water management in new development and redevelopment with structural and non-structural BMPs, in keeping with the BMP requirements as outlined within the current version of the OEPA Construction General Permit. As part of this minimum control, the City seeks to effectively manage quantities of post-development flow, manage the amount of impervious cover within its system, increase natural land set aside for riparian buffers and stream maintenance, and enhance existing storm water practices through inclusion of water quality components. The City of Canal Winchester's Stormwater Design Manual contains complete storm water management and design requirements. The Manual provides guidance on the most effective structural and non-structural BMPs for development sites, which will help protect the City's waterways from adverse impacts of storm water runoff.

Strategies

The City reviews the Storm Water Pollution Prevention Plans (SWP3s) for all submitted construction drawings within the City per the City Stormwater Design manual. The manual requires developers to design post-construction water quality BMPs in accordance with the OEPA General Permits associated with construction site stormwater runoff. The SWP3 includes the location and design of the post-construction water quality BMP that is to be installed per the proposed site improvements and the delineation of protected stream corridor protection zones for applicable sites. City Code Section 941, Stormwater Management, additionally requires the developer to prepare and submit to the City for review and approval an Operation & Maintenance (O&M) plan. The plan identifies the post-construction operator and inspection and maintenance procedures. The post-construction operator is additionally required to enter into an agreement with the City that the BMP will be properly inspected and maintained.

Minimum Control Measure Evaluation

To evaluate the success of this portion of the overall program, the City will track the number of SWP3s and O&M plans reviewed, Inspection and Maintenance agreements established and the number of annual BMP inspections conducted. The program can be modified if it is determined the plans are not being properly prepared and the required inspections conducted. Additional education to the development community may be necessary based upon the results of the program evaluation.

The Streets Manager, Urban Forester, Construction Services Administrator, and the Planning and Zoning Administrator are responsible for the overall management and implementation of the post-construction storm water management program.

MCM 5: Post-Construction Storm Water Management Measurable Goals

- Review SWP3s and Operation and Maintenance plans that are submitted to the City to ensure compliance with the City Stormwater Design Manual and the OEPA’s General Permit associated with construction site discharges.
- Review post-construction site stormwater management requirements with developers at preconstruction meetings to ensure they understand their roles and responsibilities associated with the inspection and maintenance of the water quality BMP.
- Ensure that the post-construction water quality BMPs are being properly inspected and maintained per the established agreement between the post-construction operator and the City.

BMP	Strategy
SWP3 Review	<p>The City will require the preparation and submittal of SWP3s for site improvement projects that will result in land disturbing activities of 1 acre or more.</p> <ul style="list-style-type: none"> • Review SWP3s that are submitted to the City to ensure compliance with the City’s Stormwater Design Manual and the OEPA’s General Permit. • Ensure that post-construction water quality BMPs are properly designed. • Ensure that Stream Corridor Protection Zones (SCPZs) are properly delineated on the SWP3 where applicable. <p>City Stormwater Design Manual: http://www.canalwinchesterohio.gov/DocumentCenter/Home/View/103</p>
Operation & Maintenance (O&M) Plan Review	<p>The City will require the preparation and submittal of O&M plans for site improvement projects that will result in land disturbing activities of 1 acre or more.</p> <ul style="list-style-type: none"> • Review O&M plans that are submitted to the City to ensure compliance with the City Stormwater Management Code Section 941.061 and the Ohio EPA General Permit. <p>City Stormwater Code: http://www.canalwinchesterohio.gov/DocumentCenter/Home/View/337</p>

BMP	Strategy
Inspection and Maintenance Agreements	<p>The City will ensure that an Inspection and Maintenance Agreement shall be made between the Owner and the City ensuring that the BMP(s) shall be properly inspected and maintained and shall be included within the Operation and Maintenance Plan.</p>
Preconstruction Meetings	<p>The City will notify developers and contractors of their required roles and responsibilities upon the construction of the proposed site improvements.</p> <ul style="list-style-type: none"> • BMP installation and maintenance • O&M plan review • Inspection and maintenance agreement review
Post-construction Water Quality BMP Inspection	<p>The City will ensure that the post-construction water quality BMPs are being properly inspected and maintained.</p> <ul style="list-style-type: none"> • Annually determine the BMPs that are required to be annually inspected. • Review submitted inspection reports submitted to the City. • Contact post-construction operators and notify them of their inspection and maintenance obligations if reports are not submitted to the City.
Post-construction Water Quality BMP Mapping	<p>The City will continue to update the MS4 map</p> <ul style="list-style-type: none"> • Identify and map post-construction BMPs that are installed as part of the constructed site improvements • Mapping will assist with tracking of BMPs that are required to be inspected and maintained by the post-construction operator.

MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations

Strategies

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

- The proper disposal of waste oils and greases used in the City's maintenance facilities;
- The careful use of salt during snow removal periods using measures appropriate to conditions;
- The enclosed storage of all City salt stockpile;
- Spraying for weed control;
- Very limited pesticide/herbicide use on City-owned property.
- Removal of pollutants from City maintained streets.

The City will continue to conduct inspections at their maintenance facility to determine if the BMPs are being properly implemented per the prepared SWP3.

The City will continue to take advantage of any training opportunities presented by state or local agencies whenever possible associated with municipal activities and operations water quality improvements. Performance standards under the permit require, at a minimum, one annual employee training.

Minimum Control Measure Evaluation

To evaluate the success of this portion of the overall program, the City will annually review the tracking of pollutants applied, collected and properly disposed of as part of the City's routine municipal activities. Tacking results will be evaluated to determine if pollutant source applications can be reduced or additional pollutants removed prior to mixing with stormwater and flowing into the MS4. The City will additionally track training events attended the inspections conducted at the City maintenance facility. Inspection results will be reviewed a determination made if BMPs are in need of maintenance or additional BMPs implemented to improve water quality.

The Streets Manager is responsible for the overall management and implementation of the pollution prevention/good housekeeping program.

MCM 6: Pollution Prevention Measurable Goals

- Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
- Construct improvements to the City’s existing service facility to adequately address vehicle/equipment washing and salt storage to avoid illicit discharges into the adjacent surface water.
- Update the Maintenance Facility SWP3 to meet the requirements of Ohio EPA’s Industrial Storm Water General Permit (OHR000005).

BMP	Strategy
On-going Programs	<p>The City will continue with existing programs that have a positive effect on storm water discharge.</p> <ul style="list-style-type: none"> • Continue to document the amount of deicing salt applied to streets. • Continue to document the number of outfalls and curb inlets cleaned annually. Document the amount of material collected and properly disposed of. • Document maintenance activities, schedules, and long-term inspection procedures for controls to reduce pollution to the City’s MS4. • Document the amount of pesticides, herbicides, and fertilizers used annually. • Summarize any new or existing flood management projects that were assessed for impacts on water quality. • Document proper disposal of waste oils and grease used in City maintenance facilities. • Continue to list the number of employees that have been trained on proper disposal techniques. List classes taken, as well as offeror.
Service Center Improvements	<p>The City has constructed improvements to the existing facility to adequately address vehicle/equipment washing and salt storage to avoid illicit discharges into the adjacent surface water.</p>

BMP	Strategy
Maintenance Facility SWP3 Updates	<p>The City will update the Maintenance Facility SWP3 to meet the requirements of Ohio EPA's Industrial Storm Water General Permit (OHR000005).</p> <ul style="list-style-type: none"> • Identify required stormwater discharge visual assessment procedures to assist with ensuring that the BMPs at the facility are being properly implemented. • Update the plan to include the BMPs associated with the proposed facility improvements.

TABLE OF ORGANIZATION

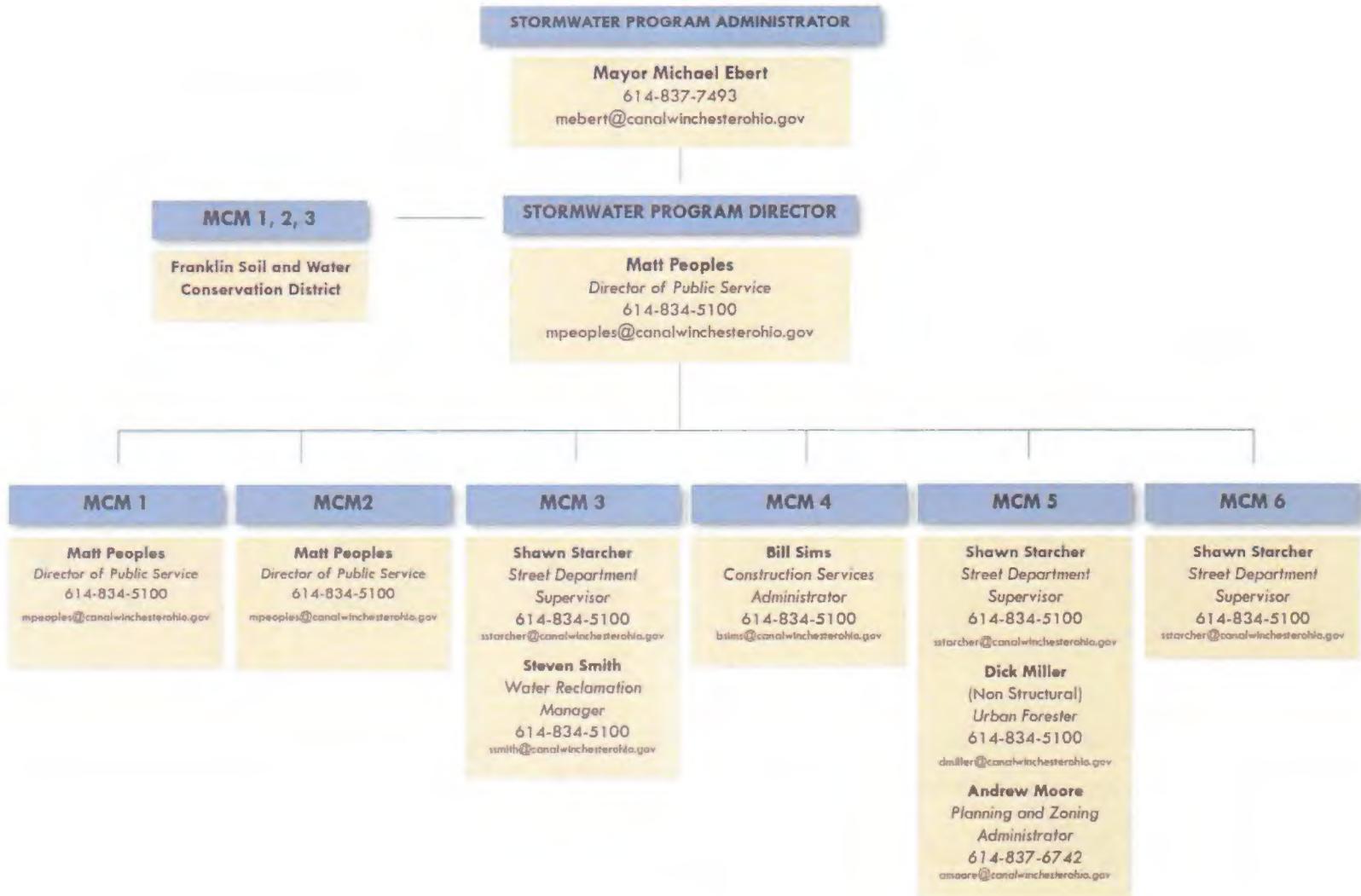
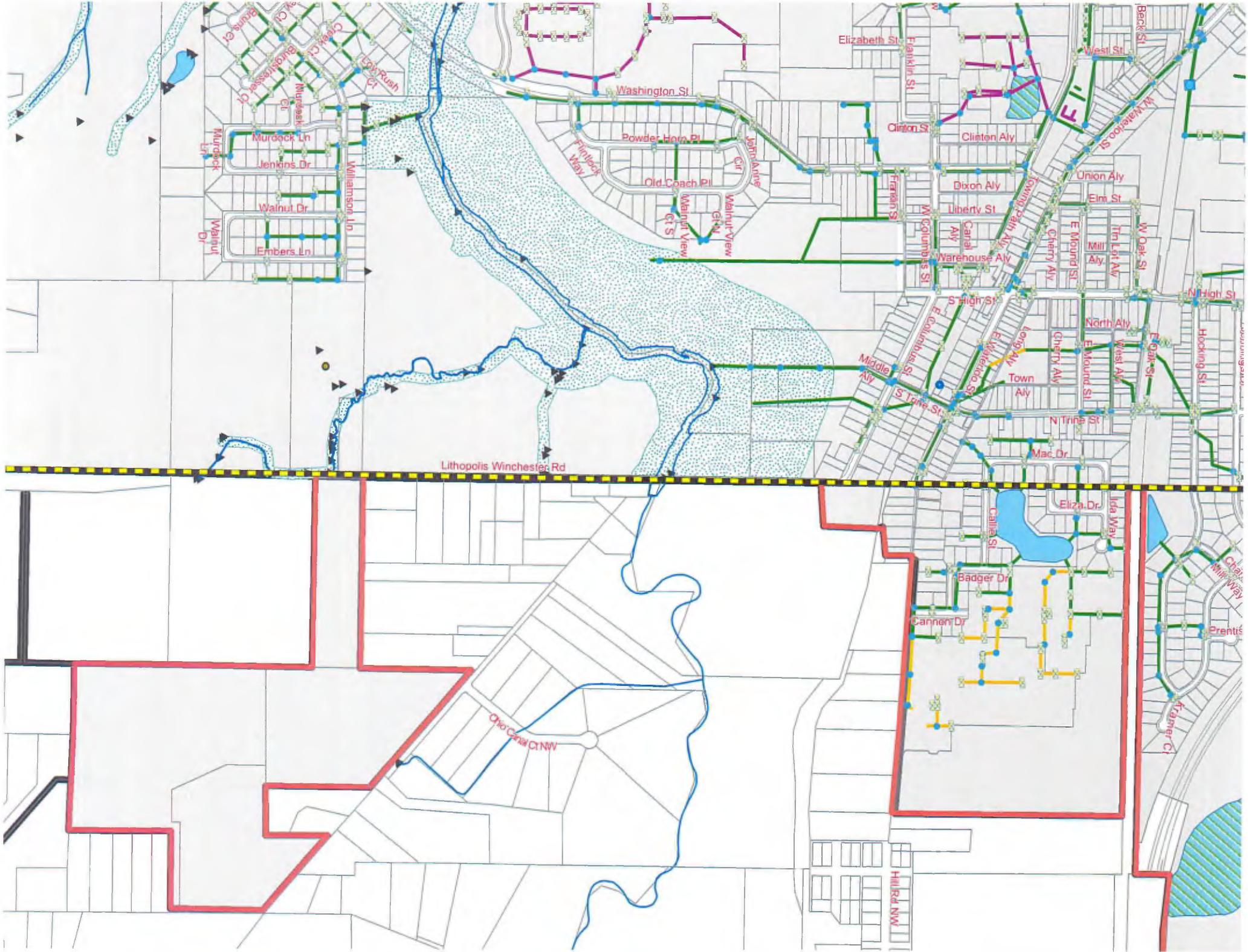


Figure 1

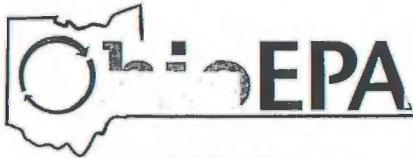
APPENDIX A
CITY OF CANAL WINCHESTER
MS4 MAP



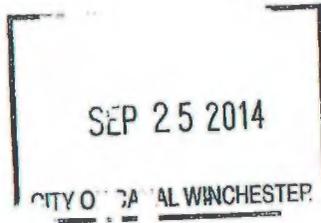


APPENDIX B
OEPA NPDES PERMIT COVERAGE APPROVAL LETTER

[The following text is extremely faint and illegible due to low contrast and blurring. It appears to be the main body of an approval letter.]



John R. Kasich, Governor
 Mary Taylor, Lt. Governor
 Craig W. Butler, Director



September 22, 2014

VILLAGE OF CANAL WINCHESTER
 MATTHEW C PEOPLES
 36 S HIGH ST
 CANAL WINCHESTER OH 43110

*Processed
 11-10-14*

Re: Small MS4 General Permit Renewal
 Ohio EPA Facility Permit No.: **4GQ10005*BG**

Dear MS4 Operator:

I am writing today to notify you of the September 11, 2014 final issuance of the Small MS4 general permit renewal and how to renew your general permit coverage. This renewal authorizes storm water discharges from regulated small MS4s.

In cases where multiple MS4s are entering into a co-permittee arrangement, the MS4 Co-Permittee form should be completed by each co-permittee and submitted with the Notice of Intent (NOI) form. There is no additional application fee for Co-Permittee NOI forms. In regards to County MS4s, the County Commissioners shall submit the NOI and the County Engineer shall submit a MS4 Co-Permittee NOI. This is consistent with the previous application process.

You are to complete and return a Notice of Intent (NOI) form with MS4 Co-Permittee NOI form(s) (if applicable) with a check for \$200.00 made payable to: "Treasurer, State of Ohio" within ninety (90) days of receipt of this letter and mail to: Ohio EPA, Office of Fiscal Administration, P.O. Box 1049, Columbus, Ohio 43216-1049.

The final issued permit renewal (OHQ000003), public notice, responsiveness summary to comments received, annual report form, NOI form and MS4 Co-Permittee NOI form (with associated instructions and completed examples of both) and other guidance documents can be viewed at:

http://epa.ohio.gov/dsw/permits/GP_MS4StormWater.aspx

If you have any questions or need hard copies of these materials mailed, contact Anthony Robinson at (614) 728-3392 or via email at Anthony.Robinson@epa.ohio.gov.

Sincerely,

Mark K. Mann, Manager
 Storm Water and Enforcement Section
 Division of Surface Water



Notice of Intent (NOI) for Coverage Under Ohio Environmental Protection Agency General NPDES Permit

Division of Surface Water

(Read accompanying instructions carefully before completing this form.)

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized to discharge into state surface waters under Ohio EPA's NPDES general permit program. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. Complete all required information as indicated by the instructions. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. A check for the proper amount must accompany this form and be made payable to "Treasurer, State of Ohio." (See the fee table in Attachment C of the NOI instructions for the appropriate processing fee.)

I. Applicant Information/Mailing Address

Company (Applicant) Name: City of Canal Winchester Ohio

Mailing (Applicant) Address: 36 South High Street

City: Canal Winchester State: Ohio Zip Code: 43110 -

Contact Person: Matthew Peoples Phone: (614) 834 - 5100 Fax: (614) 837 - 0145

Contact Email: mpeoples@canalwinchesterohio.gov

II. Facility/Site Location Information

Facility Name: City of Canal Winchester Ohio

Facility Address/Location: 36 South High Street

City: Canal Winchester State: Ohio Zip Code: 43110 -

County(ies): Franklin / Fairfield Township(s): Madison

Facility Contact Person: Matthew Peoples Phone: (614) 834 - 5100 Fax: (614) 837 - 0145

Facility Contact Email: mpeoples@canalwinchesterohio.gov

(For Construction and Coal, must complete lat/long and attach map) Latitude: _____ Longitude: _____

Receiving Stream or MS4: MS4

III. General Permit Information

General Permit Number: OHQ000003 Small MS4 Initial Coverage: Renewal Coverage:

Type of Activity: Small MS4 Fee = \$200 SIC Code(s): 9199

Existing NPDES Permit #: 4GQ10005*BG ODNR Coal Mining Application #: _____

If Household Sewage Treatment System, is system for: new home construction or replacement of failed existing system

Outfall:	Design Flow (MGD):	Associated Permit Effluent Table: (See instructions.)	Latitude:	Longitude:

Are these permits required? PTI: No Yes-Approved Yes-Yet to Apply Yes-Pending

Individual 401 Water Quality Certification: No Yes-Approved Yes-Yet to Apply Yes-Pending

Isolated Wetland: No Yes-Approved Yes-Yet to Apply Yes-Pending Yes

USACE Nationwide Permit: No Yes-Approved Yes-Yet to Apply Yes-Pending

Individual NPDES: No Yes-Approved Yes-Yet to Apply Yes-Pending

Proposed Project Start Date: _____ Estimated Completion Date: _____

Total Land Disturbance (Acres): _____ MS4 Drainage Area (Sq. Miles): 7.61

IV. Payment Information	For Ohio EPA Use Only
Check #:	Check ID (OFA):
Check Amount:	ORG #:
Date of Check:	

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

Applicant Name: Matthew Peoples Title: Director of Public Service

Applicant Signature: [Signature] Date: 11-10-14

APPENDIX C
ILLECT DISCHARGE DETECTION AND ELIMINATION PLAN



**CITY OF CANAL WINCHESTER
ILLICIT DISCHARGE DETECTION AND
ELIMINATION PLAN**

August, 2014

Table of Contents

SECTION 1.0 Introduction

SECTION 2.0 General Permit Information

SECTION 2.1 Supporting Documents and Legal Authority

SECTION 2.2 Coordinating Agencies and Departments

SECTION 3.0 Decision Process and Rational

SECTION 3.1 Illicit Discharge: Definition

SECTION 3.2 Municipal Separate Storm Sewer System (MS4): Definition

SECTION 3.3 Illicit Discharge Exemptions

SECTION 4.0 IDDE Strategy

SECTION 4.1 MS4 Mapping

SECTION 4.2 Dry Weather Screening (DWS)

SECTION 4.3 Identifying Potential Illicit Discharges

SECTION 4.4 Effluent Sampling

SECTION 4.5 Dry Weather Screening and Mapping Schedule

SECTION 4.6 Identifying Illicit Discharges Connected to the MS4

SECTION 4.7 Mapping HSTS Connected to the MS4

SECTION 4.8 Prioritized Areas

SECTION 4.9 Mitigation

SECTION 6.0 Communication and Outreach

SECTION 6.1 Reporting Illicit Discharges

SECTION 1.0 Introduction

The purpose of this document is to supplement the regulations established by the City of Canal Winchester (City) to provide for the health, safety, and general welfare of the citizens of the City through the regulation of illicit discharges to the Municipal Separate Storm Sewer System (MS4). The regulations establish methods for controlling the introduction of pollutants into the MS4 in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process as required by the Ohio Environmental Protection Agency (Ohio EPA).

This document outlines the processes that the City is taking to address concerns and water quality issues related to illicit discharges within their jurisdiction and as defined in their current NPDES permit issued through Ohio EPA.

Substantial investments in time, money, and energy have contributed to the progress made to date with defining and documenting the issues surrounding illicit discharges, primarily focusing on discharging Home Sewage Treatment Systems (HSTS). These efforts have involved identifying the locations of HSTS throughout City, field verification and dry weather screening (DWS) of MS4 outfalls, defining and evaluating the MS4, establishing ordinances and zoning requirements, conducting community education and outreach to HSTS owners, prioritizing future screening efforts, and the extension of sanitary sewers to allow for removal HSTS within the City.

The NPDES Small MS4 Stormwater General Permit (OHQ000002) defines the area of responsibility of the permittee to the locations that meet two requirements; the area of responsibility that includes the MS4s, which the permittee owns and/or operates; and, the area of responsibility that is designated by the latest United States Census as an 'Urbanized Area'.

SECTION 2.0 General Permit Information

This document was produced in accordance with the most current NPDES Small MS4 Stormwater General Permit issued to the City by Ohio EPA. This document is subject to periodic updates as progress is made with the various requirements of the permit and as OEPA clarifies or modifies the language of the permit.

In accordance with Part III of the General Permit, a Stormwater Management Program (SWMP) was developed to outline the methodology and rational to be used to satisfy the appropriate water quality requirements of Ohio Revised Code (ORC) Chapter 6111 on water pollution control and the Federal Clean Water Act. This SWMP includes management practices, control techniques, system designs, and engineering methods and addresses the following six Minimum Control Measures (MCM):

- 1) Public education and outreach
- 2) Public participation / involvement,
- 3) Illicit discharge detection and elimination (IDDE)
- 4) Construction site runoff control
- 5) Post-construction runoff control
- 6) Pollution prevention / good housekeeping for municipal operations.

This document is required as specified in Part III, Section 3.e of the General Permit, with Section 3 being the IDDE minimum control measure.

SECTION 2.1 *Supporting Documents and Legal Authority*

This document does not stand in isolation. It is part of a larger stormwater management effort and as such, should be considered in coordination with the following documents and programs:

- Federal Clean Water Act
- NPDES Small MS4 Stormwater General Permit (OHQ000002)
- City of Canal Winchester Stormwater Management Code (Section 941)

SECTION 2.2. *Coordinating Agencies and Departments*

This document reflects the cooperative effort by several departments and agencies dedicated to addressing public health issues and protecting and managing water resources. The following partner agencies are involved with this effort:

- Canal Winchester Department of Public Service
- Franklin Soil and Water Conservation District (FSWCD)
- Franklin County Public Health (FCPH)

SECTION 3.0 *Decision Process and Rational*

This IDDE Plan was produced in accordance with requirements set forth in the current NPDES Small MS4 Stormwater General Permit. The intent of the actions taken and planned are to provide for the health, safety, and general welfare of the citizens of the City of Canal Winchester through the regulation of illicit discharges to the MS4. The objectives of these efforts are: to prohibit illicit discharges and illegal connections to the MS4; and, to utilize legal authority to carry out inspections, monitoring procedures, and enforcement actions necessary to ensure compliance with applicable regulations. These regulations apply to all residential, commercial, industrial, or institutional facilities responsible for discharges to the MS4 and on any lands in the City of Canal Winchester, except for those discharges exempted from regulation.

The Stormwater Management Code found in Section 941 defines the prohibitions, exclusions, responsibilities, monitoring of illicit discharges and illegal connections, and enforcement processes associated with illicit discharges for the City. The Stormwater Management Code along with the working agreement with FSWCD outlines communication activities and target audiences associated with requirements of the NPDES Permit and outlines topics associated with IDDE efforts being undertaken by the City. Regarding discharges from HSTS, the City maintains an active relationship with FCPH for inspecting systems and enforcement measures consistent with their legal authorities.

SECTION 3.1 *Illicit Discharge: Definition*

Stormwater regulations define an "illicit discharge" as any discharge to a MS) that is not composed entirely of stormwater. Common sources of non-stormwater, dry weather discharges in urban areas include, but are not limited to, apartments and homes, car washes, restaurants, airports, landfills, and gas stations. These so-called "generating sites" discharge sanitary

wastewater, septic system effluent, vehicle wash water, washdown from grease traps, motor oil, antifreeze, gasoline and fuel spills, among other substances.

Although these illicit discharges can enter the storm drain system in various ways, they generally result from either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the storm drain system, spills, or "midnight dumping"). Illicit discharges can be further divided into those discharging continuously and those discharging intermittently.

SECTION 3.2 MS4 Definition

The Stormwater Management Code defines MS4s as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- A. Owned or operated by the City;
- B. Designed or used for collecting or conveying stormwater;
- C. Which is not a combined sewer; and,
- D. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 C.F.R. 122.2.

SECTION 3.3 Illicit Discharge Exemptions

Illicit Discharge is defined as any discharge to an MS4 that is not composed entirely of storm water, except for those discharges to an MS4 pursuant to a NPDES permit or noted in the Stormwater Management Code.

The following discharges are exempt until such time as they are determined by the City to be significant contributors of pollutants to the MS4. Additionally, other water sources not containing pollutants may be considered at the discretion of the Director of Public Service. Refer to Stormwater Management Code for the most current regulations.

- NPDES permit compliant discharges
- discharges or flows from fire-fighting activities
- uncontaminated discharges or flows from fire- protection
- uncontaminated agricultural runoff
- line flushing
- landscape irrigation
- diverted stream flows or springs
- uncontaminated pumped or rising groundwaters
- uncontaminated groundwater infiltration
- uncontaminated discharge of flow from foundation drain, crawl space or footing drains
- discharges from potable water sources
- air conditioning condensate
- uncontaminated street wash water
- dechlorinated swimming pool discharges
- irrigation water
- uncontaminated excavation or pond water

In addition, the following are not to be deemed as illicit discharges:

- Discharges specified in by the City as being necessary to protect public health and safety.
- Discharges from off-lot household sewage treatment systems permitted by the Franklin County and Public Health District for the purpose of discharging treated sewage effluent unless such discharges are deemed to be creating a public health nuisance by the Franklin County Public Health District.

SECTION 4.0 IDDE Strategy

The City has developed a strategy to reduce the water quality impacts of IDDE that includes identification, investigation, quantification, prioritization, and mitigation.

SECTION 4.1 MS4 Mapping

The City has worked cooperatively with Franklin Soil and Water Conservation District (FSWCD) to develop comprehensive mapping as required by the permit. The City maintains a city-wide GIS that includes MS4 components and surface water features. FSWCD has provided in-field verification and mapping of outfalls as well as the Dry Weather Screening (DWS) of these features.

These mapping and screening efforts have led to a comprehensive dataset of MS4 components and surface water features for the City. In addition the compilation of these elements has allowed for a system-wide prioritization for future DWS efforts.

SECTION 4.2 Dry Weather Screening

To identify illicit discharges, a process known as Dry Weather Screening (DWS) is utilized. This process requires field inspection of drainage features (components of the MS4) during periods of dry weather. Dry weather for this screening is defined as having a maximum of 0.1" of rain during the previous 72 hours. This 'dry weather' protocol helps to minimize flows due to rain or snow melt events and highlights illicit discharges.

DWS entails recording a variety of characteristics for each feature screened, including a physical description of the drainage feature, any indicators suggesting an illicit discharge, and a digital photograph of the feature. GPS data loggers are used to record the location and descriptive information of the features. This data is then processed, analyzed, and mapped utilizing GIS. The analysis assists in determining which drainage features are likely to contain illicit discharges.

The groups of features screened during this process are:

- **Flowing Pipes:** outfalls with flow at the time of screening
Note: outfalls with flow within catch basins are included in this group
- **Non-Flowing Pipes:** outfalls with no flow at the time of screening
Note: outfalls without flow within catch basins are included in this group
- **Flowing Channels:** constructed or man-made channels with flow at the time of screening
- **Non-Flowing Channels:** constructed or man-made channels without flow at the time of screening

- **Catch Basins:** catch basins with or without flow at the time of screening
- **Generic Points:** locations not fitting into the above categories, but which are of interest to stormwater management and illicit discharges: i.e. seeps, unknown water sources, dump sites, etc.

In addition to the features dry weather screened, the locations of crossovers (drainage passing under roadways or structures), and manholes are collected to assist in verifying the MS4 components and the flow direction within the system. To allow efficient referencing and tracking of the features dry weather screened, a nomenclature was developed for the various types of features screened which associated each feature with the year it was screened and the type of feature screened.

SECTION 4.3 *Identifying Potential Illicit Discharges*

Features are categorized by their potential to be a source of illicit discharge and whether or not they are an obvious (severe) source of an illicit discharge. The criteria used to identify potentially illicit discharges are considered stand-alone indicators. These are odor, color, floatables, poor pool quality, benthic growth, and deposits and stains. The presence of at least one of these criteria can designate the outfall as potentially illicit.

It is important to identify obvious (severe) sources of illicit discharge during dry weather screening, because the presence of obvious indicators (e.g. raw sewage) allows that feature to be prioritized for future follow-up investigation and resolution. For a location to be determined as an obvious (severe) source of an illicit discharge, it must have at least one of several specific, pre-defined stand-alone indicators.

SECTION 4.4 *Effluent Sampling*

To better understand what was being observed during dry weather screening and to verify the accuracy of the dry weather screening effort, follow-up effluent sampling of potential illicit discharges were done for the first several years dry weather screening as funding and planning allowed. These water samples were processed at an OEPA certified lab to determine the amounts of pollutants such as Ammonia, Ammonia Nitrogen, E.Coli, Fecal Strep, Fecal Coliform, Methylene Blue Active Substances (MBAS), and Ortho Phosphates. These lab results were included in the GIS and provided to FCPH. This additional step confirmed the accuracy of the dry weather screening process and due to this has been discontinued as part of the screening process.

The following is a brief description of the substances that can be sampled:

- **E. coli** - Escherichia coli, is a species of fecal coliform bacteria that is specific to fecal material from humans and other warm-blooded animals. Results reported in colony forming units per 100 milliliters (cfu/100 mL).
- **MBAS** - Methylene Blue Active Substances (surfactant): detergent indicator. Results reported in milligrams per liter (mg/L).
- **NH3** - Ammonia: pollutant and an indicator of sewage. Results reported in milligrams per liter (mg/L).

SECTION 4.5 *Dry Weather Screening and Mapping Schedule*

An initial DWS of MS4 outfalls and system outlets have 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.

SECTION 4.6 *Identifying HSTS Connected to the MS4*

FCPH Water Quality Program staff have been verifying whether aeration systems are connected to the MS4 using various investigation methods. Staff use a current billing list of all aerators on the FCPH annual operational inspection program. They review permit records for notations regarding the discharge point of the aeration system (storm sewer, ditch, stream, waterway, etc.). Staff field verify any aeration systems that they cannot be 100% certain are connected to the MS4. To field verify these potential connections, staff use dye tests, probing for discharge pipes, and sampling results from the Dry Weather Screening of storm sewer outfalls. Upon the determination that an aeration system is connected to the MS4, staff from FCPH will update current lists and mapping as necessary.

SECTION 4.7 *Mapping HSTS Connected to the MS4*

Franklin County Public Health maintains and is updating records on HSTS connected to MS4s for the City.

SECTION 4.8 *Prioritized Areas*

The City maintains mapping of the unsewered areas throughout its municipality. These areas were targeted early during the DWS efforts as they were more likely than the sewered areas to produce illicit discharges. The City continues their working relationship with Franklin County Public Health in working with residents in the unsewered areas.

SECTION 4.9 *Mitigation*

Confirmed by the Dry Weather Screening throughout the City, it was determined that the most significant contributors to non-stormwater flows with public health risks are discharging HSTS. While Franklin County Public Health (FCPH) conducts yearly inspections of these systems, many of the systems are not operating as intended either due to improper management of the systems, or due to the age of the systems. City staff and FCPH staff outreach to the homeowners with these systems and provide guidance and assistance in attempts to bring the systems back into proper operating condition.

Despite these efforts, which often only solve problems temporarily, the most thorough and permanent solutions to abate HSTSs causing public health nuisances are to connect households on HSTS to sewers that already exist and to extend public sewers into areas that are not currently served. The City has undertaken several sanitary sewer extension projects and has begun planning for several additional projects.

Locations outside of these area will continue to be inspected annually by FCPH staff and

investigated by City staff if it receives complaints through its Service Department.

SECTION 6.0 Communication and Outreach

Success of the IDDE Program depends, in part, on communicating it to the stakeholders and the public affected, and on providing the opportunity for community participation and input from various venues. The goal of this communication and outreach is for the community to understand the IDDE program, why it is required and its purpose, who is responsible for its implementation, how it will be implemented, and how they can become part of the solution to stormwater issues.

Public Education and Public Communication and Outreach efforts are detailed within the City's Stormwater Management Program in sections outlining activities for MCM 1 and MCM2. Examples of activities are not limited to, but include making all documents available on the website for viewing and comment, articles in newsletters, educational material in water bills, workshops and programs and current educational material on their website.

SECTION 6.1 Reporting Illicit Discharges

The IDDE Program benefits from citizen reports regarding spills, illegal dumping, sewage and other observed pollution and various avenues are available to the community depending on the material or liquid being discharged. The City receives discharge and spill complaints from residents, law enforcement, and fire officials which are subsequently investigated by City staff. The following are contact numbers for reporting illicit discharges:

- City of Canal Winchester – 614-837-7493
 - Web reporting - <http://canalwinchesterohio.gov/requesttracker.aspx>
- Ohio EPA spill response – 800-282-9378
- Franklin County Public Health – 614-525-3965
- Franklin Soil & Water Conservation District – 614-486-9613

