Stormwater Management Plan

Updated 2022

TABLE OF CONTENTS

Introduction

1. Requirements

The City of Gahanna is required to develop, implement, and support a Storm Water Management Program (SWMP) to the maximum extent practicable (MEP) to protect water quality and to satisfy the appropriate water quality requirements of Ohio Revised Code (ORC) 6111 and the Federal Clean Water Act. This plan provides communications and guidance to City of Gahanna staff, elected officials, community partners, businesses, and residents involved in implementing the SWMP. The plan also provides information to Ohio EPA on how the City of Gahanna intends to comply with the Municipal Separate Storm Sewer System (MS4) NPDES Storm Water General Permit. Implementation is the responsibility of the City of Gahanna.

This plan is tailored to individual community needs as an understanding of the community's resources, character, and natural resources as the starting point for activities listed in this plan. The plan is organized by the six minimum control measures (MCMs) that are set forth in the NPDES Phase II permit language. These MCMs are:

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. and Pollution Prevention/Good Housekeeping for Municipal Operations.

Each MCM has established best management practices (BMPs) identified to meet current permit requirements. BMP is a broad term that refers to practices including educational brochures, regulations, and actual implementation practices. Each MCM also includes statements as to legal authority and rationale as to how and why BMPs were selected. A table of organization identifies the primary point of contact and responsible parties for each MCM (appendix A) . A separate spreadsheet has been created to provide more details for each BMP including responsible parties, program metrics, and schedules. The full text of the permit and other guidance documents can be viewed at http://www.epa.ohio.gov/dsw/permits/GP_MS4StormWater.aspx.

2. Community Description

The City of Gahanna is comprised of an estimated 33,248 residents and 12,931 households, with a median household size of 2.6. The median age is 38.8, and 82.7% of the population is White, 12.5% Black, 1.4% Hispanic, and 2.6% Asian. The median income of residents is $72,474.[1]

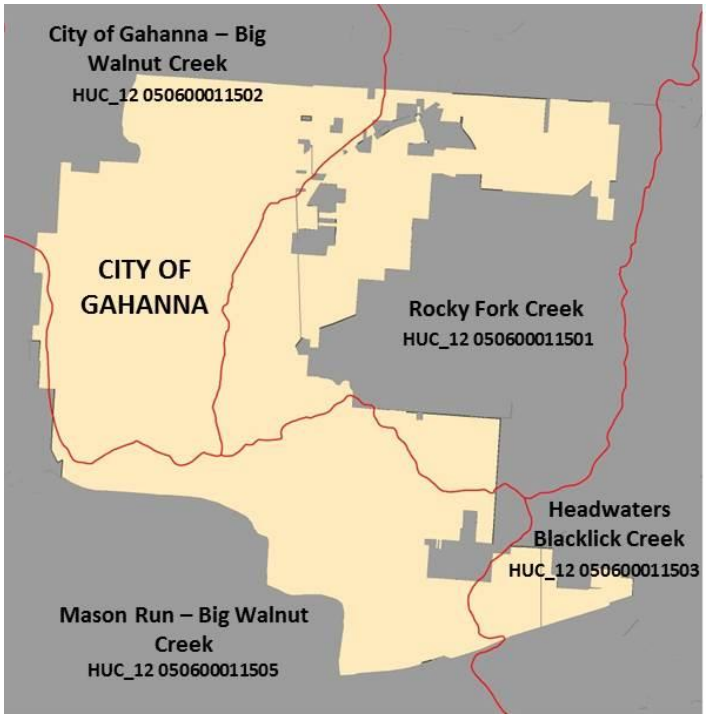

Figure 1: Watershed boundaries (outlined in red) and the City of Gahanna

The City of Gahanna encompasses 8,051 acres of land and approximately 26 miles of streams (based on Franklin Soil and Water Conservation District GIS data) within the Big Walnut, Rocky Fork and Blacklick watersheds.[1,2,2] According to Gahanna's 2019 updated Land Use Plan, the City approximates 55.6% of land is residential use, 25.4% is office/commercial/industrial/institutional use, and 11.4% is parkland and open space.[3 3] Gahanna maintains approximately 153 miles of sanitary sewer lines, 152 miles of water lines and 126 miles of storm sewer lines. Based on USGS topographic maps, the terrain within the City of Gahanna is relatively flat except for the riparian corridors.

Approximately 93% of the City of Gahanna is characterized as "upland," with another 6% identified as some form of wetland.[4] Many of the City of Gahanna's riparian areas are managed by the Gahanna Parks and Recreation Department. A progressive program of conservation related activities within many park boundaries have transformed underused areas into both educational and environmentally functional parklands and preserved open space for the city residents. For example, Hannah Park features parking lot bioswales that help treat storm water in conjunction with conventional retention ponds.

[1] City of Gahanna website, https://www.gahanna.gov/community-profile/, Accessed 21 October 2021

[2] National Hydrography Dataset GIS layer, December 2016

[3] City of Gahanna website, https://www.gahanna.gov/wp-content/uploads/2019/10/Land-Use-Plan-Final.pdf , Accessed 21 October 2021.

3. Total Maximum Daily Load

Background

The "Rocky Fork Creek" and "Headwaters Blacklick Creek" sub watersheds extend North into Delaware County and the latter spreads eastward into Licking County where the primary land use in the headwater streams is agriculture and rural residential. Total Maximum Daily Loads (TMDL) were developed for these watersheds by Ohio EPA and approved by USEPA in 2005. Watershed Action Plans for Lower Big Walnut (December 2006), Rocky Fork (June 2009), and Blacklick Creek (June 2010) were developed by the Mid-Ohio Regional Planning Commission and Franklin Soil and Water Conservation District staff with City of Gahanna support and community input with a focus on addressing needs stated in the TMDL report.

The Ohio EPA water quality program consists of a suite of rules and studies designed to classify water quality in streams and identify priorities for impaired streams. Water quality designations include warm water habitat, modified warmwater habitat, and exceptional warm water habitat. For a full explanation of Water Quality Designations visit: http://www.epa.ohio.gov/dsw/wqs/index.aspx. Ohio EPA is required to identify impaired streams through the state's 303(d) list. TMDL studies are conducted on impaired streams to identify causes of impairment and set load limits that need to be met through permit and voluntary programs. For more information regarding the 303(d) list and TMDL program visit: http://www.epa.ohio.gov/dsw/tmdl/index.aspx.

Results

In 2000 as part of a TMDL study, the OEPA sampled two sites on Rocky Fork Creek that are affected by Gahanna—one at Clark State Rd. and the other at Hamilton Rd. The first of these is outside of the City of Gahanna, while the second is within city limits. Both were identified as in partial attainment of water quality standards based on the biological communities present. The stream at these sites is expected to attain Exceptional Warmwater Habitat standards—a higher goal than that set for the upstream portions of Rocky Fork. The last sample site prior to the Clark State Rd. location—the Thompson Rd. site—did not meet Warmwater Habitat criteria in 2000. While Rocky Fork Creek watershed as a whole appears on the OEPA's 303(d) list of impaired watersheds, it is not considered one of the high priority (highly impaired) watersheds on that list.

The Lower Big Walnut mainstem was assessed as meeting water quality standards at the sample site in the City of Gahanna (just downstream from the confluence with Rocky Fork Creek) and the one immediately South of the City (below the airport tributary). However, it was noted that the site just South of the Rocky Fork confluence had higher bacteria counts and total suspended solid levels than it had in the past. McKenna Creek, a small tributary of Big Walnut with its confluence and much of its watershed in Gahanna, was assessed as not meeting use attainment standards. Pathogens, nutrients, total suspended solids and ammonia were all identified as problems. Unzinger Ditch which leaves the southeast corner of Gahanna and enters Blacklick Creek is identified as an impaired stream with contaminated sediments, elevated nutrient levels and habitat alteration named as causes of impairment. Other potential impacts on Blacklick resulting from runoff from Gahanna are minimal.

According the 2000 Big Walnut Technical Support Document (TSD), the Rocky Fork generally was impaired by storm sewers, sanitary sewers, construction sites, surface runoff, and failing Home Sewage Treatment Systems (HSTS). Primary pollutants of concern identified in the Big Walnut TMDL are *E. coli* and phosphorus. Both parameters were somewhat elevated in at least one of the samples taken at the Clark State Rd. and Hamilton Rd. sites on Rocky Fork

Creek. Ammonia, nitrite, biological oxygen demand, and total suspended solids were measured at the 75th percentile or higher in samples taken at one or both sample sites. The wastewater treatment plant (WTP) on Windrush Rd. in Jefferson Township appears to have had a significant impact on the pollutant concentrations found at the Hamilton Rd. sampling site. This WTP has since been taken offline.

Problems in the Big Walnut in and just below Gahanna were linked to urban runoff. The sources of impairment for McKenna Creek were identified as urban runoff and HSTS. The impairment in Unzinger Ditch was attributed to industrial site runoff, raw sewage discharge and channelization.

There are several elevated levels of heavy metals in Rocky Fork Creek, most of which are identified components of surface runoff. However, there is no evidence that the heavy metals are affecting the biological communities. Heavy metal concentrations in the sediments at Hamilton Rd. in Gahanna are lower than those measured in samples taken at Old 161 above Gahanna. Sediment contaminations in the mainstem of Big Walnut were identified as metals, PAHs and pesticides, all of which were attributed to suburban runoff.

TMDL Targets

TMDL targets set in Appendix A of the Small MS4 General NPDES Permit No.: OHQ000004 are *E. coli* and total phosphorus and thus are the primary target of this stormwater management plan. These targets are derived from the 2000 TMDL study targets that were set for the Rocky Fork and Blacklick watershed for pathogens and nutrients including:

- 77% reduction in *E. coli* levels discharged by failing HSTS's was established as the target for Rocky Fork, while a 78% reduction was set for the Headwaters of Blacklick Creek.
- 62% reduction in total phosphorus discharged from failing HSTS's was put in place for both Rocky Fork and Blacklick creeks.
- 2% and 5% reductions in *E. coli* counts were set as the targets for the mainstem of Big Walnut Creek as it flows through the City of Gahanna, and
- 58% total phosphorus reduction goal was set for McKenna Creek.

Discharging HSTS's were identified as the primary problem to be addressed to get the needed reductions

Past Actions Related to TMDL

Changes to facilities in the City of Gahanna are expected to have improved the water quality of affected creeks. The decommissioning and removal of the Jefferson Township's WTP on Windrush Rd. has likely had a positive effect on the total phosphorus loads of Rocky Fork Creek in the City of Gahanna. Sewer projects in the City of Gahanna have eliminated 58 HSTS's over the last six years. Progress in implementing the agreement between Franklin Steel Company and the Ohio EPA to address problems with toxics at the Franklin Steel site should result in water quality improvements to Unzinger Ditch, a tributary of Blacklick Creek. Storm water projects have been implemented on Souder Ditch (Figures 2 and 3) in the Rocky Fork watershed and on McKenna Creek, which ought to have benefited both those creeks. A stream restoration project was constructed on Sycamore Run, a tributary to Rocky Fork Creek

that also should result in improved habitat and potentially improved water quality. Future options for addressing unsewered areas in the City of Gahanna are being studied.

Figure 2: Storm water infiltration project on Farmwood Pl

Figure 3: Storm water infiltration project on Ashmead Dr.

The Plan

This SWMP is organized by MCMs. The SWMP includes best management practices, measurable goals, rationale, decision process, responsible parties, time schedules and other appropriate information. Additionally, a SWMP schedule of measurable goals and activities is being used in addition to assist with planning activities and tracking progress (see Appendix E "Stormwater Management Plan Schedule and Tracking").

1 Public Education and Outreach

A. Introduction

The first MCM requires the City of Gahanna to distribute educational materials or conduct equivalent outreach activities to the community about the impacts of storm water discharges and steps the public can take to reduce pollutants to water bodies. This outreach must reach at least 50% of the community, targeting multiple audiences with at least 5 education themes. The themes need to address existing water quality needs, including targeting reductions in *e. coli* and phosphorus loads in local streams. An informed and knowledgeable community is important to a successful storm water program. This lays the foundation for community participation in responsible land management, compliance with local and state regulations, and support for community projects and programs needed for a successful storm water program.

B. Decision Process and Rationale

The City of Gahanna's program utilizes existing resources with Franklin Soil and Water Conservation District, Franklin County Public Health, Gahanna Parks and Recreation and Gahanna Public Schools to reach residents, students, community groups, developers, landowners, and businesses. The City of Gahanna and Franklin Soil and Water Conservation District continue to look for new outreach practices include multiple messages, delivery mechanisms, and incentives for participation. Messages have always been targeted to existing water quality needs including *e. coli* and total phosphorus.

C. Best Management Practices

The City of Gahanna is using the following BMPs to educate the public about the importance of taking the right action to reduce stormwater runoff and pollution entering local streams and rivers.

i. Stormwater Program Promotion

City of Gahanna actively promotes the SWMP through themes and messages on its website, e-newsletters, and in social media. Franklin Soil and Water Conservation District supports the City's efforts with monthly messaging, graphics, and video targeted to stormwater pollution and Big Walnut Creek TMDLs. Franklin Soil and Water Conservation District also uses its website, social media, and targeted newsletters and e-newsletters for residents, developers, and businesses interested in conservation practices.

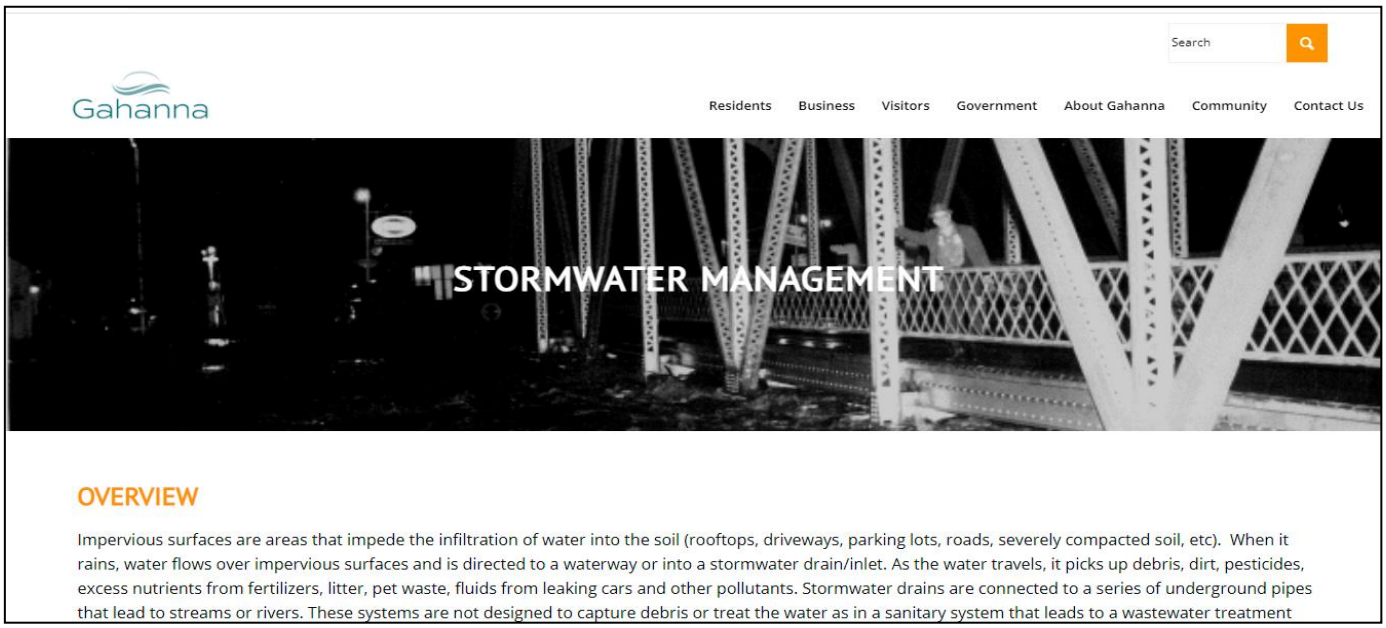

Figure 4: Stormwater Management Program Information on City of Gahanna Website

The following mechanisms are used:

- Print and online communication will include City of Gahanna and Franklin Soil and Water Conservation District's website, e-newsletters, and social media.
- Program evaluation will include estimation of residents reached based on website visits, social media interaction, and emails sent.

ii. Youth Education

Franklin Soil and Water Conservation District works with all schools within the City of Gahanna to provide onsite programming to 50% of K-12 students and 90% of all elementary teachers, middle and high school science teachers, and science curriculum coordinators over a 5-year period. Programming is targeted to Ohio State Science Standards and 5 educational themes in this stormwater plan including targets in relation to the Big Walnut Creek TMDL using the following mechanisms and activities:

Figure 5. Franklin SWCD Interactive School Program

- Programming will include In-Class, In-Field, Virtual, loan materials, a poster contest, and Envirothon.
- Print and online communications will include the SWIFT Newsletter, "Now I Know" educational handouts, social media postings, and an information webpage on resources and contacts.

- Program evaluation will include number of students and teachers reached, teacher surveys, and internal discussions.

iii. Targeted Outreach Programs

In partnership with the City of Gahanna, Franklin Soil and Water Conservation District has developed numerous outreach programs targeted to specific audiences, actions, and TMDL pollutants including *e. coli*, total phosphorus, and total suspended solids. These programs are regionally available providing the added benefit of a wider audience reach across municipal boundaries, cross promotion of programs, and cost efficiency.

The City of Gahanna currently supports and participates in:

- Community Backyards, which provides workshops and online education to residents, focusing on what they can do at home to reduce stormwater runoff and pollution entering local waterways. By participating, residents are eligible for rebates on rain barrels, compost bins and native plants or trees.

- Gardening for Clean Water, which targets local nurseries and garden centers to promote rain garden education for clean water and the use of native plants. The program involves educational signage, employee training, and rain garden plant tags to designate rain garden appropriate perennials, shrubs, and grasses.

- Pick Up Poop, which encourages residents to clean up after their pets to protect our waterways. We reach out to community members at local events and spread the word about the possible impacts of pet waste on clean water.

Figure 6: Community Backyards Promotion

The following mechanisms and activities are used:

- Programming will include workshops, online courses, educational materials at businesses, and booths at community events.

- Print and online communications will include program information “hot cards”, mailings, educational handouts, website, social media, and e-newsletters.
- Program evaluation will include number of residents reached, results from “Be the Change for Clean Water” website survey, unsolicited comments received, and internal discussion.

iv. Targeted Information and Assistance to Homeowners

Franklin County Public Health and Franklin Soil and Water Conservation District work with City of Gahanna homeowners to implement the following conservation practices to address their natural resource concerns and Big Walnut TMDL targets:

- Franklin County Public Health continues to expand its communication, oversight, and assistance to homeowners with HSTS. The priority for communication and assistance is discharging systems because they are known to have the largest failure rate and they discharge directly to the nearest drainage or waterway
- Franklin Soil and Water Conservation District staff are available to City of Gahanna residents to provide guidance on drainage, stream erosion, native plants, and other natural resource concerns as requested**.**

The following mechanisms and activities are used:

- Programming includes on-site evaluations, mailings**,** phone conversations, and rain garden cost-share funding.
- Print and online communications include informational handouts and website information.
- Program evaluation will include number of residents reached, unsolicited comments, and internal discussions.

Figure 7: Residential rain garden after rain event.

v. Developer and Business Outreach

City of Gahanna and Franklin Soil and Water Conservation District continue to reach out to contractors, consultants, and businesses to increase awareness of stormwater pollution and how to manage it. This includes two separate efforts.

Outreach and education are provided to those planning for and managing active development sites. Webinars and workshops are held to provide education on good stormwater management practices, programs, and green infrastructure. Target audiences will include consultants, developers, stormwater managers, and other interested parties. Information is also provided to landowners and developers during permit authorization, preconstruction meetings, and site visits.

The Water Quality Partner program targets local businesses and what they can do to better manage properties to reduce stormwater pollution. This program includes education on proper management of fats, oils and grease, salt, dumpsters, auto maintenance, paints, concrete washouts, and more.

For both these efforts the following mechanisms and activities are used:

- Programming includes on-site posters, webinars, workshops, presentations, participation incentives, and business recognition.
- Print and online communications include informational handouts and website information.
- Program evaluation, which will include number of residents reached, unsolicited comments, and internal discussions.

Figure 8: Water Quality Partner Program Promotion

D. Themes

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

The main educational themes can be summarized as follows:

i. "Keep waste out of streams (e.g. yard waste, trash, dumping)"

Rationale

Trash can be a source of pathogens in waterways, while lawn waste contributes nutrients and increases the biological oxygen demand in streams. Trash and lawn waste are also the most visible and readily identifiable sources of pollution in the City of Gahanna's streams. As such they also provide an opportunity to educate people regarding the nature of non-point source pollution.

ii. "Protect water quality through the implementation of homeowner BMPs"

Rationale

The City of Gahanna has a history of supporting rain garden and rain barrel installation, both of which reduce nutrient runoff and sediment in streams. Storm water runoff carries nutrients in an urban setting, and these two practices reduce that runoff. Similarly, runoff increases sediment loads in streams by increasing stream flow and thereby adding to the erosion caused by the creeks. Any reduction to that runoff decreases both pollutants. Maintaining HSTS systems is also a component of implementing homeowner BMPs, which reduces both pathogens and nutrients.

iii. "Keep pet and animal waste from polluting our streams"

Rationale

Studies from Seattle found that dog waste in particular contributes nearly 20% of the bacteria load in storm water samples (http://www.epa.gov/safewater/sourcewater/pubs/fs_swpp_petwaste.pdf). Pathogens were identified by the TMDL as the second major problem that needs to be addressed to improve water quality in Blacklick and Rocky Fork creeks. While bacteria levels from failing HSTS's are cited as the primary targets for reduction, cutting down on bacteria loading from pet waste can only enhance efforts to remediate failing HSTS's. Under this theme, information on the hazards associated with storm water will be addressed.

iv. "Improving water quality with riparian vegetation"

Rationale

Vegetation planted along our waterways provides multiple water quality benefits. Roots stabilize the soil, reduce erosion and limit siltation. They can also provide improved habitat in the stream, offering refuge for a variety of organisms. In addition, water entering and leaving creek channels via groundwater movement is filtered by the roots, reducing nutrient loading.

v. "Install and maintain proper storm water management controls on development sites"

Rationale

The OEPA's TMDL and TSD reports indicate that development has contributed to siltation in creeks in the Big Walnut watershed. The failure to maintain proper sediment controls on construction sites can be a major direct contributor of silt to our streams. Ensuring that construction sites are appropriately managed so as to minimize the sediment that leaves those sites is a critical component of protecting streams from the impact of sediment runoff.

E. Responsible Party and Legal Authority

The Water Resources Engineer will be responsible for the overall management and implementation of the storm water public involvement/participation MCM. Under a working agreement with the City of Gahanna, Franklin Soil and Water Conservation District will assist with program implementation. These activities are well within the authority and ability of the City of Gahanna in partnership with Franklin Soil and Water Conservation District. No additional regulation development will be required.

2. Public Participation and Involvement

A. Introduction

This MCM requires the City of Gahanna to engage the public for input and involvement in the City of Gahanna SWMP. Public participation provides opportunities for input and assistance for the SWMP with opportunities to engage in the development and implementation of the program. Public participation events are also aligned with Public Education and Outreach with incentives to implement actions from education and awareness activities. Gahanna exceeds the minimum permit requirements with more than 5 events over the permit term. Several activities address Big Walnut TMDL targets to reduce *e. coli* and total phosphorus loading in local streams. Involving the public in the Gahanna's SWMP is important because actions that impact stormwater runoff and pollution take place on private land.

B. Decision Process

To address this MCM, the City of Gahanna has created a public education and outreach program that utilizes a comprehensive approach to maximize the effectiveness of education and outreach to inform the public and encourage changes in attitude and behavior. The program will target the development community, individuals, households, businesses, and students K-12. Existing educational programs will provide a foundation for this community-wide plan. Any interest groups in the community that could play a role in the storm water management planning and implementation process will be identified during planning meetings. These groups will be engaged in the outreach, education and involvement processes.

C. Best Management Practices

The public will be encouraged to be involved in the City of Gahanna's SWMP, including through assistance with installing practices, opportunities to participate in city wide events, and the ability to provide feedback on program implementation. The following BMPs will be used for public involvement/participation:

i. Community Wide Event

- City of Gahanna Parks and Recreation will work with a community group to organize a stream clean-up or tree planting event annually.

ii. Resident Conservation Implementation

- With support from the City of Gahanna, Franklin Soil and Water Conservation District will provide rebates for native plants, rain barrels, or compost bins to residents who have completed the online course and quiz, or who have participated in an in-person workshop through the Community Backyards Program.
- With support from the City of Gahanna, Franklin Soil and Water Conservation District will provide guidance, planning assistance, and cost share to residents who install a rain garden on their property.

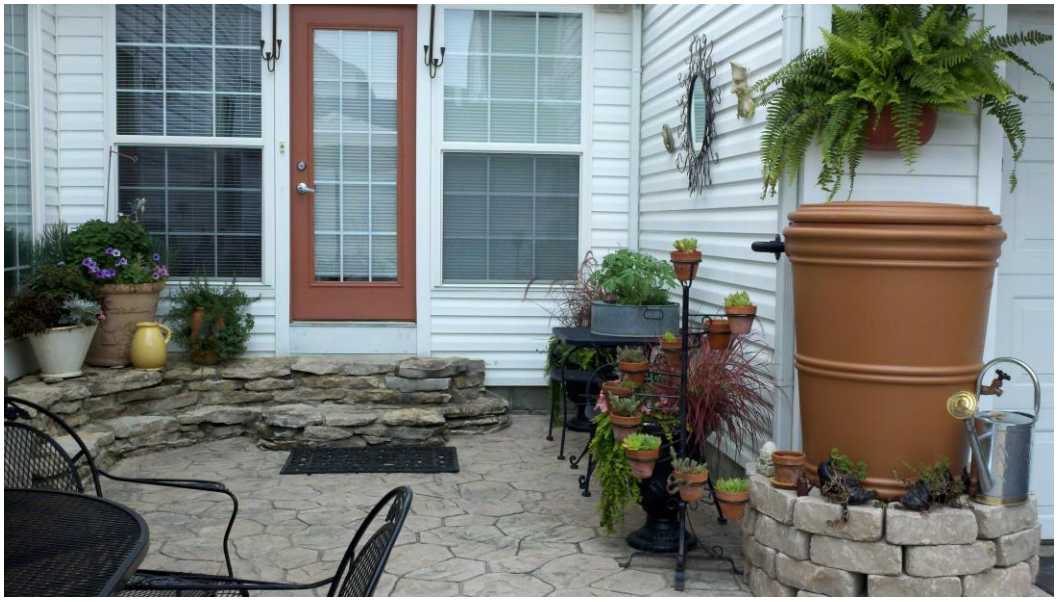

Figure 9: Rain barrel Installation through rebate program.

Stormwater Practice Commitment

- Franklin Soil and Water Conservation District will provide pet waste holders and bags to residents who commit to picking up pet waste.

- Franklin Soil and Water Conservation District will provide educational information and resources to businesses who pledge to become a water quality partner by committing to water quality improvement practices. Additionally, partner businesses will be provided a static cling and website recognition.

PUP
Pick Up Poop

Figure 10: PUP Program Logo

iii. Public Input

- Provide opportunity for and consideration of public input into storm water management plan by uploading information on the plan to the City of Gahanna website (https://www.gahanna.gov/stormwater-management/).
- Consider and respond to complaints and comments provided by residents.
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D. Themes

The City of Gahanna will address all 5 different education themes identified under public education and outreach during the duration of this permit. The themes will target existing and potential community pollution sources as identified in the relevant TMDL.

E. Responsible Party and Legal Authority

The Water Resources Engineer will be responsible for the overall management and implementation of the storm water public involvement/participation MCM. Under a working agreement with the City of Gahanna, Franklin Soil and Water Conservation District will assist with program implementation. These activities are well within the authority and ability of the City of Gahanna in partnership with Franklin Soil and Water Conservation District. No additional regulation development will be required.

3. Illicit Discharge Detection and Elimination

A. Introduction

This MCM requires the City of Gahanna to implement and enforce a program to detect and eliminate illicit discharges. An illicit discharge is any discharge to an MS4 that is not composed entirely of storm water with some exceptions. Examples of an illicit discharge include dumping of any waste down storm drains, failing HSTS, and direct or indirect inflows to storm sewer pipes from gray water or sanitary lines. The exceptions defined by the permit are: waterline flushing, springs, water from crawl space and sump pumps, footing drains, landscape irrigation, lawn watering, diverted stream flows, rising ground waters, individual residential car washing, uncontaminated groundwater, foundation drains, uncontaminated pumped groundwater, air conditioning condensation, dechlorinated swimming pools, potable water sources, flow from riparian habitats and wetlands, street wash water, discharges, or flows from firefighting activities. Addressing this MCM includes mapping, legal prohibition, and enforcement, and a plan to detect and eliminate non-stormwater discharges.

The City of Gahanna has its municipal storm water system along with all surface drainage and intersections mapped in a GIS. Surface drainage and intersection mapping are managed by Franklin Soil and Water Conservation District as part of a larger county-wide stream and drainage mapping effort. Included in the database are the outfall locations, a description of the outfall, and the names of the waters of the State that receive discharges from those outfalls.

B. Decision Process and Rationale Statement

The City of Gahanna has a history of valuing its stream corridors and has incorporated parkland and recreation opportunities in these corridors. Ongoing efforts continue to address the need to reduce *e. coli* and total phosphorus loads in the Big Walnut Watershed. The Illicit Discharge and Detection Program (IDDE) Program is an important tool for reducing these loads by identifying pollution from failing discharging HSTS systems. In total the City has over 300 outfalls and 40 discharging HSTS systems. Past dry weather screening results have identified HSTS systems and commercial areas to be the primary sources of pollution. To better ensure that the City of Gahanna has good knowledge of infield conditions, the City of Gahanna has decided to investigate all stormwater outfalls over the permit period. The City of Gahanna also has targeted regulations and good relationships with Franklin County Public Health and Franklin Soil and Water Conservation District to support a strong and effective IDDE. Please see Gahanna's IDDE Program Plan for an elaboration of the activities associated with this minimum control measure.

C. Best Management Practices

The BMPs selected are required by the permit and address the City of Gahanna's needs as outlined in the decision process and rationale statement above.

i. **Ordinances or other Regulatory Mechanisms**.

City of Gahanna has a comprehensive illicit discharge and illegal connection code 927.24 addressing discharges from unauthorized connections, industrial and construction activities, portable toilets, and any other non-stormwater discharges to the MS4. Notice of violations, injunctive relief, recovery of costs, and further legal action are all outlined in the ordinance.

ii. Municipal Separate Storm Sewer (MS4) Map

City of Gahanna regularly updates its MS4 which includes location of outfalls, names and location of surface waters receiving discharges from these outfalls, catch basins, pipes, ditches, flood control facilities, and public and private post-construction BMP's installed since 2003, including type of BMP.

iii. HSTS Mapping and List

City of Gahanna has coordinated with Franklin Soil and Water Conservation District and Franklin County Public Health to support and coordinate HSTS Mapping Systems to ensure systems that discharge to the City of Gahanna's MS4 are operating as designed. When the systems fail, Franklin County Public Health works with the landowner to address maintenance needs or replace failing system. Enforcement is taken when compliance cannot be reached.

iv. IDDE Plan

To address in greater detail planning and procedures for mapping updates, dry weather screening, and elimination of known illicit discharges, the City of Gahanna has a comprehensive IDDE Plan. In addition, the City of Gahanna has undertaken or is studying the feasibility of the following projects as part of its IDDE Program. Dates are subject to change and the projects are contingent on funding and feasibility.

- East Johnstown Sewer (Andalas Drive to Larry Lane): This is tentatively set for construction in 2023/2024 and when completed will eliminate approximately 22 onsite systems.
- Triangle East Sewer (Riva Ridge Blvd to Pamela Drive): Phase 1 was constructed in the spring of 2013 and 4 home treatment systems have been eliminated after connecting to sewer. Subsequent phases are programmed into the City's Capital Needs Assessments. When completed, the projects will eliminate 30 on-site systems.

Figure 11: GIS mapping in Gahanna

v. Dry Weather Screening of Outfalls

Franklin Soi and Water Conservation District will continue dry weather screening of 20% of outfalls annually. Dry weather screening involves visiting mapped outfalls when there has been no rain for over 72 hours. Screening during dry weather more effectively identifies discharges that are not directly related to stormwater runoff. When illicit discharges are

discovered, efforts are made to trace the discharge to its source. After a field investigation the information is turned over to Franklin County Public Health and/or the City of Gahanna.

vi. Report Sanitary Discharges to Ohio EPA

City of Gahanna will report all sanitary discharges to Ohio EPA at cdo24hournpdes@epa.ohio.gov within 24 hours as required by the permit. Discharges can be a result of illegal connections or failure of a sanitary sewer line.

vii. Employee, Business and Resident Education

Franklin Soil and Water Conservation District will provide information to employees, residents and businesses on how to recognize and report pollution through education activities including newsletters and water quality partner programs. The City of Gahanna will provide this information on their website's stormwater program page.

D. Responsible Party and Legal Authority

The Water Resources Engineer will be responsible for the overall management and implementation of the IDDE program. Legal authority is provided under the City of Gahanna Codified Ordinances 927.04 and 943.02.

4. Construction Site Storm Water Runoff Control

Figure 12: Proper sediment basin stabilization

A. Introduction

This MCM addresses development planning and management of storm water runoff from construction activity disturbing one acre or greater. Stormwater runoff management starts with good site design and construction activity planning. Good planning can reduce impacts to natural resources and provide for better stormwater runoff treatment when development is completed. During construction, the focus is on managing sediment as well as waste. Water is retained and released during and after storm water events and erosion is minimized through design, management of construction activity, and use of erosion control practices until the site is stabilized with permanent vegetation. Waste in the form of discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste is required to be managed and disposed of properly.

Sediment is the number one pollution of concern in Ohio with construction and urban runoff being the primary contributor in the City of Gahanna and Franklin County. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. Unmanaged storm water runoff from developed land results in stream bank erosion. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to local streams. Storm water retention and detention on construction sites reduces the volume and velocity of storm water entering ditches and streams.

B. Decision Process and Rationale

Development in the City of Gahanna largely consists of multi-family homes, commercial infill, and redevelopment. To comply with the small MS4 and general construction stormwater permits, the City

has developed clear expectations through well-established regulations in City code. The City then follows-up these regulations with frequent communications to developers starting at plan development and permitting and carried through during regular site inspections and site stabilization. Additionally, TMDL requirements for total phosphorus include a minimum of site inspections every two weeks for sites that are not in compliance. This minimum measure overlaps with activities in both MCM 1 and MCM 5. All activities meet or exceed permit requirements.

C. Best Management Practices

To address this MCM, the City will address the following best management practices as a part of its construction site storm water runoff control program:

i. Ordinance or Other Regulatory Mechanism

The City of Gahanna has well established ordinances in place under City Gahanna Code Chapter 1193, Stormwater Management Policy and Chapter 1195, Erosion and Sedimentation/Post Construction Runoff Control. When there is non-compliance identified during site inspections the City of Gahanna will follow the following escalation process:

- 1st Notice of Violation completed by site inspector
    - After 3 days of notice for corrective action on controls except sediment settling ponds.
    - After 10 days of notice for controls needed on sediment settling ponds.
- 2nd Notice of Violation completed by site inspector
    - No corrective action taken to first notice
- 3rd Notice of Violation completed by site inspector
    - No corrective action taken to second notice results in inspector recommending to Water Resource Engineer that a stop work order or other enforcement action take place.
- Stop Work Order Issued and violation sent to prosecutor as appropriate.

For first and second violation a follow up site visit is rescheduled within 3 – 10 days. If compliance issue is a routine maintenance item, the site will be inspected at next scheduled inspection time.

ii Sediment and Erosion Control Requirements

Requirements for sediment erosion controls are well detailed in Code Chapter 1195 including stormwater pollution plan requirements, sediment and erosion standards, and criteria and post construction runoff control. Site inspections are completed every two weeks during active construction by Franklin Soil and Water

Conservation District and City of Gahanna staff. Site inspections may occur monthly on inactive and complying sites. Site inspections are in addition to site operator's requirement to conduct and track weekly inspections. City inspections provide an opportunity to provide additional guidance and education, issue warnings, or assess penalties and easily comply with TMDL requirements for non-complying sites. Follow-up inspections on non-complying sites may occur more frequently, depending on the threat of discharging sediment to waters of the state. Inspections will also address any failure to use concrete truck washouts, improper placement of portable toilets, and any improper disposal of construction related waste. The City of Gahanna has procedures for site inspection including a site checklist that is used for each inspection (see appendix B)

.

iii Complaint Process

Figure 13: Concrete washout

The City tracks the receipt and consideration of public inquiries, concerns, and information submitted regarding local construction activities, both written and verbal. This will recognize the important role that the public can play in identifying cases of noncompliance.

iv. Site Plan Review Procedures

Requirements for stormwater pollution prevention plans are outlined in Code Chapter 1195. These plans are then reviewed by Franklin Soil and Water Conservation District and City of Gahanna using an established site plan review checklist (appendix C)

v. Enforcement Procedures

Enforcement procedures are outlined in Chapter 1195 and includes stop work orders, fines and legal action. Enforcement is carried out by the city zoning department.

D. Responsible Party and Legal Authority

The Water Resources Engineer will be responsible for the overall management and implementation of the construction site storm water runoff control program (City of Gahanna Codified Ordinances—Chapter 1193). Franklin Soil and Water will act on behalf of the City of Gahanna for plan review and construction site erosion and sediment control inspections. The Water Resources Engineer will review the success, and document achievement of the measurable goals of the construction site storm water runoff control program and BMPs.

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

A. Introduction

After a construction site is completed and stabilized, post-construction stormwater control facilities are required to be managed over the long-term to reduce impacts of developments over one acre on stream and water resources. As stormwater runoff flows over developed land it carries pollutants such as sediment, oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus) to nearby ditches and streams. Once deposited, these pollutants increase sediment in ditches and pipes and impact water quality and viability of aquatic organisms. Post construction runoff also increases the quantity of water delivered to ditches and streams during storm events. The effects of this process include stream bank erosion and downstream flooding. Post-construction facilities can include retention and detention basins, bio-swales, underground storage, swirl chambers, conservation easements and stream setbacks. These facilities help minimize the impacts of development to our water resources.

B. Decision Process and Rationale

The City of Gahanna will ensure the proper installation, operation and maintenance of post-construction to minimize and water quality impacts from development and comply with the small MS4 stormwater permit. Post-construction facilities operate poorly or fail when they are not installed correctly or maintained regularly. Actions taken by the City to keep these facilities in good operation condition include making sure they are installed correctly and making sure current and future owners understand and address maintenance requirements. This will include education, guidance, long-term operation and maintenance (O&M) plans and enforcement as needed. The City also values the added benefit of encouraging green infrastructure adoption in new development whenever possible due to its ability to better treat stormwater runoff pollution and increase ground water inputs. These practices include permeable pavers, low impact development, rain gardens, bioswales/bioretention, stormwater planter boxes, vegetated swales and filter/buffer strips. Proper selection and management of post-construction storm water BMPs can address sediment, pathogens and nutrients, all identified as causes of impairment in the Big Walnut TMDL. This minimum measure overlaps with activities in both MCM 1 and MCM 4. All activities meet or exceed permit requirements.

C. Best Management Practices

To address this MCM, the City of Gahanna will address the following BMPs as a part of its post construction management program:

i. Ordinances and other Regulatory Mechanisms

The City of Gahanna has well established ordinances in place under City Gahanna Code Chapter 1193, Stormwater Management Policy and Chapter 1195, Erosion and Sedimentation/Post Construction Runoff Control.

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ii. Post Construction Requirements

Requirements for post construction controls are broadly addressed in City Gahanna Code Chapter 1193. Under 1193.03, stormwater runoff control purpose and criteria are outlined for stormwater runoff control, including the requirement of using green infrastructure and the allowance of non-structural practices. Chapter Chapter 1195 includes information on design requirements, O&M plans, and fees, enforcement and penalties. The City of Gahanna also references the Ohio EPA Rain Water and Land Development Handbook.

City of Gahanna requires an O&M plan that clearly defines maintenance schedules and responsible parties. Changes in ownership are noted when discovered during annual notification mailings and expectations are clarified with the new property owner.

iii. Site Plan Review Procedures

Plan review for post-construction facilities occurs concurrently with Stormwater Pollution Prevention Plan Review. Post construction facilities are part of the construction process. Stormwater basins serve as sediment traps during construction and other facilities need to be properly phased into construction for proper long-term function. Documentation for post-construction plan review is part of the plan review checklist described in MCM 4.

iv. Site Inspection Procedures

The first inspection of completed and fully operation post-construction facilities take place at final construction site inspection. Currently the City of Gahanna requires the developer to submit as-built-surveys. City will then verify the accuracy for operation approval. The City of Gahanna sends out annual reminders requesting proof of maintenance and inspects each site once over the permit term. Changes in ownership are noted at this time.

v. Enforcement Procedures

The City of Gahanna has enforcement procedures outlined in city Code 1195.07 – 1195.99. Facilities not properly maintaining post construction facilities maybe be subject to fines and legal action.

vi. TMDL Focused Activities

To address total phosphorus the City of Gahanna will:

a, Continue to provide educational opportunities to contractors and developers with a focus on table 4b practices in the general construction permit and other green Infrastructure practices. This education will be conducted through Franklin Soil and Water Conservation Districts Urban Review Newsletters, Central Ohio Stormwater Round Tables and Center for Watershed Protection webinars. Franklin Soil and Water Conservation District will work with the City to compel contractors and designers to sign up for newsletters and/or attend workshops or webinars.

b. Continue to require the use of green infrastructure practices on development sites when feasible.

c. Continue to look for opportunities to retrofit existing stormwater practices.

D. Responsible Party and Legal Authority

The Water Resources Engineer will be responsible for the overall management and implementation of the post construction storm water management program (City of Gahanna Codified Ordinances—Chapter 1195). Franklin Soil and Water Conservation District will provide technical guidance and educational opportunities to assist the City in training and meeting this MCM.

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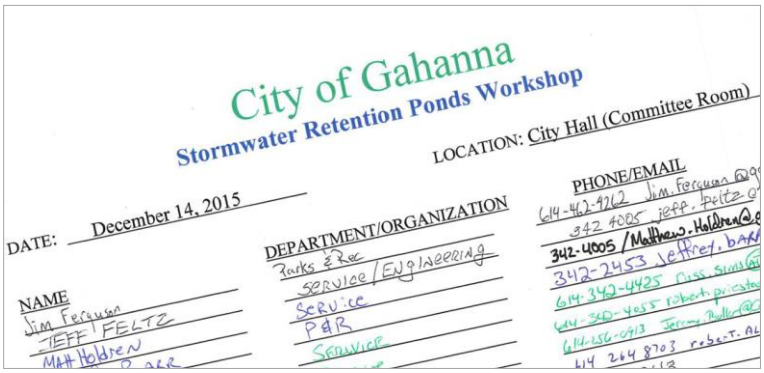
6. Pollution Prevention and Good Housekeeping

A. Introduction

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


City of Gahanna
Stormwater Retention Ponds Workshop
LOCATION: City Hall (Committee Room)
DATE: December 14, 2015
NAME
DEPARTMENT/ORGANIZATION
PHONE/EMAIL
Jim Ferguson
JEFF FELTZ
Matt Holdren
Parks & Rec
Service/Engineering
Service
P&R
Service

B. Decision Process

The City of Gahanna is committed to maintaining its operations to prevent and reduce stormwater runoff pollution from entering the MS4 using guidance from Ohio EPA and meeting requirements in the stormwater permit. This will include education, stormwater pollution planning, sound facility management procedures, and regular facility inspections to ensure that BMP are being followed. This minimum measure overlaps with MCM 1 and MCM 3.

C. Best Management Practices

To address this MCM, the City will address the following BMPs as a part of its post construction management program:

i. Employee Training

Each employee involved with park, open space, fleet and road maintenance, as well as new construction and land disturbances will attend a stormwater related training annually. Topics will cover stormwater BMPs, proper management and disposal of waste, tracking requirements, recognizing and reporting illicit discharges, storm water system maintenance, and reviewing Storm Water Pollution Prevention Plan (SWPPP) with staff.

ii. List of facilities subject to program

The City of Gahanna has no facilities that require an industrial stormwater general permit. Facilities that conduct activities described in 40 CFR 122.26(b)(14), including vehicle maintenance facilities, composting facilities, impoundment lots, and waste transfer stations are required to have a SWPPP. SWPPPs include identification of stormwater runoff patterns, identification and proper management pollution sources including covering salt piles and dumpsters, easy to access spill kits, bollards for brine tanks and proper treatment of runoff for temporary waste piles. For Gahanna these facilities that require SWPPPs are:

- 152 Oklahoma Avenue Municipal complex,

- 785 Science Boulevard Facility, and
- 220 Ridenour City Golf Course.

iii. MS4 Maintenance

To ensure proper conveyance of stormwater and minimal conveyance of pollutants, the City of Gahanna will clean and repair all catch basins on an established maintenance schedule. Additionally, the City will ensure that all outfalls and conveyances are stable and ditch maintenance is seeded and stabilized at final grade according to standards set in the construction general permit. For MS4 ditch maintenance adjacent to 50 feet of a surface water of the state, the City of Gahanna will initiate site stabilization within 7 days of reaching final grade or within the first 7 days if a disturbed area will remain inactive for over 14 days. For MS4 ditch maintenance or MS4 within 50 feet of a surface water of the state the city will initiate site stabilization within 2 days of reaching final grade or within 2 days if the area is to remain inactive for over 14 days.

iv. Proper Stormwater Practices for City Maintenance Activities

The City of Gahanna will manage and track proper stormwater practices are required by the permit. This will involve evaluating for chemical use reductions, proper waste disposal, and reduction of road pollutants from entering the MS4. The program includes establishment of procedures, controls, maintenance schedules and record keeping.

- Properly manage and dispose of wastes.
- Properly apply salt in a way that minimizes usage.
- Properly store salt under cover with brine tanks protected with Jersey Ba
- Properly manage use of pesticides and herbicides
- Decrease use of fertilizer – especially fertilizer with phosphorus
- Minimize trash, grits, and other pollutants in the street which may be transferred to the storm water system.

v. Quarterly Inspections

To meet TMDL requirements for total phosphorus quarterly inspections are conducted at each facility and SWPPPs are updated when changes are made to these facilities. Facility inspections will include:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information and a description of any discharges occurring at the time
- of the inspection;
- Any previously unidentified discharges of pollutants from the site;
- Any control measures needing maintenance or repairs;
- Any failed control measures that need replacement;
- Any incidents of failure to implement your SWPPP observed;
- Any additional control measures needed.

vi. Flood Management Practices

Ensure storm water management is considered for all flood management projects.

E. Responsible Party and Legal Authority

The Water Resources Engineer will be responsible for the overall management and implementation of the pollution prevention and good housekeeping program (City of Gahanna Codified Ordinances—Chapters 921, 925, 927 and 1191). The Water Resources Engineer will be responsible for the creation and implementation of a Storm Water System Maintenance Plan.

Appendix A

Definitions

Appendices

Appendix A. Definitions

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

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

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

Illicit Discharge Detection and Elimination (IDDE): One of the six MCM that is required to be included in the storm water management program of an operator of a Phase II regulated small MS4 to obtain its National Pollutant Discharge Elimination System permit.

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

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

Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances that is owned by a state, city, town, village, or other public entity that discharges to waters of the U.S., designed or used to collect or convey storm water (e.g., storm drains, pipes, ditches). It is not a combined sewer, and not part of a sewage treatment plant or publicly owned treatment works (POTW).

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

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

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

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

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

Total Maximum Daily Loads (TMDL): The Ohio EPA TMDL program, established under Section 303(d) of the Clean Water Act (33 U.S.C. 1313), focuses on identifying and restoring polluted rivers, streams, lakes and other surface water bodies. A TMDL is a written, quantitative assessment of water quality problems in a water body and contributing sources of pollution. It specifies the amount by which a pollutant needs to be reduced to meet water quality standards (WQS), allocates pollutant load reductions, and provides the basis for taking actions needed to restore a water body.[5]

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

Appendix B

Organization Chart

Responsible Parties:
Parks & Recreation Dept.
- Facilities Div.

Service Dept.
- Engineering Div.
- Fleet Management Div.
- Refuse & Recycling
- Streets & Sanitation Div.

Planning & Zoning
Franklin SWCD (FSWCD)
Franklin Co. Public Health (FCPH)
City Attorney
City Council

Coordination and Administration of Storm Water Management Program
Water Resources Engineer

MS4 Working Agreement Partner, Frankin Soil and Water Conservation District (FSWCD)

Minimum Control Measure	Public Outreach and Education	Public Participation and Involvement	Illicit Discharge Detection and Elimination (IDDE)	Construction Site Runoff Control	Post Construction Runoff Control	Pollution Prevention / Good Housekeeping
	MCM #1	MCM #2	MCM #3	MCM #4	MCM #5	MCM #6
Primary Responsible Party	FSWCD | Jennifer Fish	FSWCD | Jennifer Fish	Service Department | Water Resources Engineer FSWCD | Jennifer Fish [1]	Service Department | Water Resources Engineer FSWCD | Jennifer Fish [1] Code Enforcement [2]	Service Department | Water Resources Engineer FSWCD | Jennifer Fish [1] Code Enforcement [2]	Service Department | Water Resources Engineer FSWCD | Jennifer Fish [1]
Performance Standard	More than one mechanism, at least five different storm water themes; At least 50% of the population over the permit term	Minimum of five public involvement activities over the permit term	Include dry-weather screening info; establish priorities, goals for long-term "surveillance", specific investigations of outfalls and their tributary area where there is a high likelihood of illicit discharges; evaluate and revise priorities and goals annually based on this evaluation; comprehensive storm sewer map updated annually	Include preconstruction storm water pollution and prevention plan review; frequent inspections (monthly unless prioritized otherwise); update local requirements for constancy	Design plan review, installation, inspection, ensure O&M plans developed and agreements in place for all applicable sites; update local requirements for consistency	SWPPP for all municipally owned facilities (e.g., vehicle & equipment maintenance, materials management, fuel dispensing, etc.
			[1] FSWCD – dry weather screening and outfall mapping	[1] FSWCD – plan review, inspections [2] Code Enforcement – violation enforcement	[1] FSWCD – plan review [2] Code Enforcement – violation enforcement	[1] FSWCD – training programs

Appendix C

Soil and Erosion Control Inspection Report

Franklin Soil and Water Conservation District
Creating Conservation Solutions for Over 70 Years

Construction Site Erosion and Sediment Control Inspection

Project Name:		**Inspector(s)**	
Municipality/Township:		*Enter up to 3*	
Parcel ID/Address/Lot #:			
NOI:	**Acreage Disturbed:**	**Date/Time:**	Tuesday 3/29/22 2:49 PM
Receiving Waters:		**Temp:**	**Climate:**
LDR Permit *(Prairie Township Only)* **:**		**Discharge Occurring?**	
Primary Contact:		**Type of Inspection:**	

Inspection Checklist

BMP/Activity	Maintenance Needed? *Timeline for Action*	Comments *Any applicable photos are attached*
Construction Entrance *May require periodic top dressing or reworking of existing stone to limit off-site tracking. Geotextile should underlay stone.*	**No / Not Applicable** *No Action Required*	
Roads/Off-Site Tracking *Inspect roads at end of each day; establish a sweeping schedule; site access limited to designated entrances.*	**Yes (1st Notice)** ***Within 3-Days***	
Silt Fence/Straw Wattle/Berm *Proper installation (trenched and/or have good ground contact). Check for tears/ damage. Remove accumulated sediments.*	**Yes (1st Notice)** ***Install BMP Within 10-Days***	
Inlet Protection *Remove accumulated sediments and check for tears/damage.*	**Yes (2nd Notice)** **3-Day Follow-up Scheduled**	
Sediment Basins/Traps *Surface skimmer in place and functioning; banks should be stabilized and regularly checked for rills/gullies.*	**Yes (1st Notice)** ***Within 10-Days***	
Stabilization: Temporary *Areas idle for 14+ days; stabilize within 7-days of most recent grading; 2-days if within 50-feet of a waterway.*	**Yes (1st Notice)** ***Within 2-Days***	
Stabilization: Permanent *Areas at final grade or idle 1yr+; stabilize within 7-days of most recent grading; 2-days if within 50-feet of a waterway.*	**Yes (1st Notice)** ***Within 7-Days***	
Dewatering *Controls are needed if discharges from dewatering activity contains sediment (trenches, excavation pits, groundwater).*	**No / Not Applicable** *No Action Required*	
Non-Sediment Controls *Includes concrete washout area, portable toilets, fuel/chemical storage, etc.*	**Yes (3rd Notice)** **In Enforcement**	
Inspection Logs *Site operator must conduct inspections every 7-days* ***AND*** *after rainfall events producing 0.50-inch+ over 24-hr period.*	**No / Not Applicable** *No Action Required*	

Other Notes/ Observations:	

Type of Action(s) Taken *(select at least 1 action)*	**Name/Date/Other Details**
Written inspection sent to builder/owner	
Verbal compliance with on-site contact	
Follow-up inspection scheduled	
Temporary stop-work order recommended	
All building inspections & permits suspended	

Appendix D

Site Plan Review Checklist

Franklin Soil and Water Conservation District
Creating Conservation Solutions for Over 60 Years

Plan Review Checklists

Preliminary | Construction | Post-construction

Project Name:	
Reviewer Name:	**Date:**

Preliminary Plan Checklist

Physical Inspection of Site and/or Desktop Review	
	Make note of pre-existing conditions and natural features including streams, steep slopes, woods or wetlands
	Indicate cover type:
	Take pictures of pre-existing natural features if applicable
	Will any special permits be needed?
Plan Review	
	Location of stormwater basins
	Stream and wetland setbacks
	Natural feature protection
	Floodplain limits and regulations
	Soil limitations
	Hydrology/drainage patterns (existing AND proposed)
	Topography (existing AND proposed)
Notes	

Construction Plan Checklist (swppp)

Plan Review	
	NOI paperwork submitted to OEPA | NOI # (link to OEPA online system)
	Name of Permit holder: Phone:
	Total acres of site:
	Total acres disturbed:
	Erosion and sedimentation notes included
	Specs included for each BMP used and are up-to-date (reflect OEPA & ODNR requirements)
	Locations of perimeter controls (12” minimum diameter required for alternatives to silt fence).
	Locations of diversion practices (swales, berms, etc). Drainage areas do not exceed 10 acres.
	Are all necessary BMPs indicated on the plan including areas for temporary and permanent seeding
	Basin design reviewed | Depth: Length to Width Ratio: Outlets: Location:
	Temporary outlet structure(s) details included (risers, skimmers, etc)
	Stormwater calculations have been included in plan/report
	Clearing and grading limits clearly indicated
	Location of on-site sewer systems (if applicable)
	Soil types indicated
	Location of vehicle access; designated construction entrances
	Location of easements; conservation or utility
	Cement washout area provided
	Stabilization schedule and chart
	Estimate of quantities
	Sequence of construction including implementation schedule for erosion control BMPs
	Existing and proposed contour elevations
Notes	

Post-construction Checklist	
Plan Review	
	Post-construction stormwater management accounted for
	Calculations shown for structural SCMs designed to release WQv over a 24-48 hour time period
	Regional SCM being used and meets OEPA requirements
	Sediment accumulation accounted for SCMs used for sediment storage (at least 20% of WQv)
	Offsite post-construction SCM proposed and meets OEPA requirements
	Site was previously developed (20% net reduction in runoff coefficient OR utilizes SCM to treat 20% of WQv)
	Site includes new development & redevelopment (used equation 3 to calculate WQv as specified by OEPA)
	Runoff reduction practices are being used to reduce the WQv or size of post-construction practices and meet OEPA RW&LD Manual specifications. *Green Roof, Impervious Surface Disconnection, Rainwater Harvesting, Bioretention Area/Cell, Infiltration Basin, Infiltration Trench, Permeable Pavement (Infiltration), Underground Storage (Infiltration), Grass Swale, Sheet Flow to Filter Strip, Sheet Flow to Conservation Area*
	Groundwater recharge calculations shown for practices in the Big Darby Watershed
	Temporary BMP's that will be converted to post-construction SCM's show details for final configuartion/layout
	Long-term Operation & Maintenance (O&M) Plan exists as standalone document and includes:
	An entity designated for storm water inspection and maintenance responsibilities
	The routine and non-routine maintenance tasks to be undertaken
	A schedule for inspection and maintenance
	Any necessary legally binding maintenance easements and agreements
	Construction drawings/excerpts show the facility plan view and profile, as well as details of the outlet(s)
	A map showing all access and maintenance easements
	A description of how pollutants will be removed and disposed of
Notes	

Appendix E

Stormwater Management Plan

Schedule and Tracking

MCM 1 PUBLIC EDUCATION AND OUTREACH

BMP	Measurable Goal	Mechanism	Activities Summary	Theme	Schedule	Targeted Audience	Performance Metrics	Tracking Parameter and Documentation	Responsible Party	ID
Stormwater Program Promotion	Inform 80% of households over five-year permit period of City of Gahanna's (Gahanna) storm water program and what individuals, households, developers and businesses can do to protect and improve surface water quality.	website, social media, newsletters, handouts	**Frankly Speaking Newsletter and Backyard Conversations e-Newsletter** **a.** Provide newsletters by mail and/or e-mail **b.** Promote subscriptions at community events **c.** Provide information on MCM 1 and MCM 2 activities	All 5 themes (2 per Year)	2 each Year	Residents	**a.** ≥400 households per year **b.** ≥3.33% of households per year	**a.** # of residents reached / newsletters distributed **b.** List of topics / SWMP theme **c.** Copy of Newsletter **d.** Copy of e-Newsletter	**Outreach Program Cooridinator, FSWCD**	**1-01**
			Webpages **a.** Publicize and communicate stormwater program using webpages **b.** Provide information on how to recognize and report pollution.	All 5 themes	Ongoing		**a.** ≥800 hits on Gahanna storm water and backyard conservation webpages **b.** Hits on Gahanna storm water and backyard conservation webpages reflecting >=6.66% of households per year	**a.** # of hits **b.** Copy of webpages	**Water Resource Engineer, City of Gahanna**	**1-02**
			Gahanna's "Quarterly Update" **a.** Provide information on MCM 1 and MCM 2 activities	All 5 themes (1 per Year)	1 each quarter		**a.** ≥10,000 households per year **b.** ≥80% of households per year	**a.** # of households reached **b.** List of topics / SWMP theme **c.** Copy of at least one "Quarterly Update" with storm water article		**1-03**
Youth Education	Provide stormwater education information and resources to 50% of students attending schools within the City of Gahanna. Some programming will be focused on TMDL pollutants ecoli and total phosphorus.	workshops, videos, loan kits, handouts, contests and displays	**In Class, In Field and Virtual** **a.** Provide presentations and interactive displays in the class room. **b.** Participate in state wide poster contest and highschool envirothon.	All 5 themes	Annually	Students	≥700 students per year	**a.** # of Students reached **b.** Topics covered / Copy of Program Flyer	**Environmental Education Specialist, FSWCD**	**1-04**
		newslettter	**SWIFT Newsletter** **a.** Provide newsletter by mail and e-mail **b.** Provide stormwater related educational program materials to teachers for use in class		Semi-Annually	Teachers	≥250 teachers per year	**a.** # of teachers reached **b.** # of kits provided to teachers **c.** # Students Reached **d.** Topics provided **e.** Copy of newsletter		**1-05**
Targeted Public Outreach Programs	Provide more targeted programming to homeowners, HSTS operators, gardeners and dog owners. All programming will address TMDL pollutants total phosphorus and/or ecoli.	Workshops and Community Events	**Community Backyards Program** **a.** Provide workshops with materials on benefits of rain gardens, rain barrels, composting, native plants and trees, and good lawn care. **b.** Highlight backyard conservation rebate program, rain garden cost-share, and annual FSWCD tree sale.	Themes 1, 2, and 4	May - October	Homeowners	**a.** 100 residents particpate in workshop or on-line course. **b.** 1% of residents over 5 years	**a.** # of workshops, location, date **b.** # materials distributed **c.** # of residents participating in in-person workshops **d.** # of residents participating in online workshopse. **e.** Hot Cards / Flyers **f.** Workshop Handouts **g.** Workshop sign-in sheets	**Outreach Program Specialist, FSWCD**	**1-06**
			Gardening for Clean Water Program **a.** Rain garden and native plant educational displays at local nurseries and garden centers.			Gardeners	**a.** Participation of 1 nursery within 5 miles of the City of Gahanna.	**a.** # of nurseries participating **b.** # of materials distributed	**Conservation Implementation Specialist, FSWCD**	**1-07**

BMP	Measurable Goal	Mechanism	Activities Summary	Theme	Schedule	Targeted Audience	Performance Metrics	Tracking Parameter and Documentation	Responsible Party	ID
			Dog Waste Program "Pick Up Poop" (P.U.P.) **a.** Provide education online, via social media, and at one community event. **b.** Provide free petwaste bags for residents who take the pledge to pick up poop.	Theme 3	Year Round.	Pet Owners	a. 1000 residents reached with PUP messaging	a. # of materials distributed b. # of residents reached at events or through advertising.	**Outreach Program Specialist, FSWCD**	**1-08**
Targeted Information and Assistance to Homeowners	Provide on-site assistance and guidance to homeowners to support implementation of practice to reduce stormwater runoff and improve water quality.	Site visits, informational handouts	**Proper HSTS Maintenance** **a.** Request updates and provide feedback for Public Health's HSTS program.	Theme 2	Annually	HSTS Owners	a.# of residents per year b. 100% of residents with discharging systems.	a. # of letters with education mailed	Stormwater Program Coordinator, Franklin SWCD	**1-09**
			Landowner Assistance **a.** Provide education and assistance to landowners to meet their specific natural resource concern. **b.** Encourage practices that will reduce stormwater runoff and improve water quality.		As Requested	Homeowners	a. all residents seeking guidance assisted. b. < 1% or residents	a. # of residents assisted	Assistant Director, Franklin SWCD	**1-10**
Developer and Business Outreach	Provide storm water information to 100% of the developers and businesses working in Gahanna	Newsletter	**Urban Review Newsletter** **a.** Provide Urban Review Newsletter to all of the development community	Theme 5	Quarterly	Development Professionals	**a.** ~1,700 developers per year	**a.** # of development community reached/newsletters distributed **b.** List of topics / SWMP theme **c**. Copy of newsletter	Urban Program Specialists, FSWCD	**1-12**
		workshops and webinars	**Urban Conservation Program** **a.** Provide Access to Webinars (Center for Watershed Protection, etc.); **b.** Organize Workshops (Brown Bag Discussions).				**a.** 150 to 200 attendees per year **b**. 750 to 1000 attendees over 5 years	**a.** # of and type of events **b**. # of Attendees **c.** Copy of Flyer / Advertising **d**. Copy of event sign-ins		**1=13**
		mailings, handouts, website, incentives and recognition	**Water Quality Partner Program** **a.** Provide mailer with information regarding Water Quality Partner Program and steps business can take to protect our waterways **b.** Highlight pledge and area wide recognition for business when they sign up	Themes 1, 3, 5	Once per Year	Business Owners and their Employees	~400 businesses reached	**a.** # of materials distributed **b.** Copy of Mailers **c**. Copy of Hot cards / Flyers	Outreach Program Specialist, FSWCD	**1-14**

MCM 2 PUBLIC INVOLVEMENT AND AND PARTICIPATION

BMP	Measurable Goal	Targeted Audience	Activities Summary	Theme	Schedule	Estimate Number of People to Participate	Tracking Parameter and Documentation	Responsible Party	ID
Communty Wide Events	Work with community groups to organize at least one Stream Clean-up or Tree Planting Event per permit term.	Community Groups	**Stream Clean-up** **a.** Work with community groups to hold an event, providing support for trash pick-up. And/OR..	Themes 1 and 4	One Activity Per Permit Term	Approximately 10 residents per event	**a.** # of participants **b.** # bag debris **c.** sign-In Sheets **d.** photos	Parks and Recreation Staff, City of Gahanna	**2-01**
			Tree Planting Event **a.** Work with community groups to hold a tree planting event.				**a.** # of participants **b**. # trees planted	Water Resource Engineer, City of Gahanna	**2-02**
Resident Conservation Implementation	An average of 50 residents a year will install an approved practice under the Community Backyards Program	Residents	**Community Backyards Program** **a.** Provide incentive (rebates on materials) to residents who implement stormwater practices such as installing rain gardens or rain barrels, composting or planting native vegetation.	Themes 1, 2, 3, 4	Annually	50 residents	# of residents receiving the incentives	Outreach Program Coordinator, FSWCD	**2-03**
	On average, one resident per year over the permit term will participate in the cost-share program and install a rain garden		**Rain Garden Assistance** **a.** Provide assistance to landowners in developing rain garden plans. **b**. Manage cost share assistance to landowners who install raingardens.			1 resident		Community Outreach Specialist FSWCD	**2-04**
Stormwater Practice Commitments	An average of 50 residents will make a PUP pledge each year during the permit term	Residents	**Pick Up Poop (PUP) Program** **a.** Publicize the program and provide education through multiple means on the impact of pet waste on water quality. **b.** Promote and receive pledges.	Theme 3	Annually	50 residents	# of residents participating	Outreach Progam Coordinator, FSWCD	**2-05**
	A total of 10 businesses will have returned a pledge by the end of the permit term.	Businesses	**Water Quality Partner Program** **a**. Recruit businesses to work to keep the waterways that flow through our communities healthy by using best management practices in their daily operations and by educating their employees about stormwater issues through direct mailing, newsletters, and recognition.	Theme 1 and 3	Annually	10 businesses	# of businesses pledging		**2-06**
Public Input	Provide an opportunity for and consideration of public input into storm water management plan.	Residents	**a.** Make the plan available for public comment on the city website	All 5 Themes	Ongoing	5 residents	# of residents who comment	Water Resource Engineer, City of Gahanna	**2-07**
	Respond to 100% of resident complaints and/or comments related to storm water issues		**a.** Make complaint form readily accessible on website **b.** Respond to complaints				Record complaints and responses		**2-08**

MCM 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

BMP	Measurable Goal	Activities Summary	Schedule	Tracking Parameter and Documentation	Responsible Party	ID
Ordinance or Other Regulatory Mechanism	The City of Gahanna has enacted ordinances to prohibit illicit discharges. The City will review and update as necessary, evaluating its effectiveness annually	**a.** Review ordinances 927.24 Illicit Discharge to the Storm Sewer System https://library.municode.com/oh/gahanna/codes/code_of_ordinances?nodeId=PTNINESTPUSECO_TITTHREEPUUT_CH927STSE_927.24ILNORDIILCOSTSESY making sure that it is compliant with Ohio EPA requirements **b**. Update as necessary	Annually	**a.** Completed Y/N **b.** Effective Y/N **c.** Copy of ordinance	Water Resource Engineer, City of Gahanna	**3-01**
Storm Sewer System Map	Maintain comprehensive storm sewer map showing location of outfalls and names and location of surface waters receiving discharges from these outfalls including catch basins, pipes, ditches, flood control facilities, post construction BMP's and private post-construction BMP's, identifying BMP types	**a.** Update and maintain comprehensive storm sewer map **b.** Show location of outfalls and names and location of surface waters receiving discharges from these outfalls **c.** Include catch basins, pipes, ditches, flood control facilities, post construction BMP's, private post-construction BMP's.	Annually	**a.** Completed Y/N **b.** Effective Y/N **c.** Summary of Activities **d.** Copy of Map	Water Resource Engineer, City of Gahanna	**3-02**
HSTS Mapping and List	The City of Gahanna will maintain and update a HSTS map using GIS and an active list will be made available to the OEPA and Franklin County Public Health	Maintain and update HSTS map and list with new systems as needed	Annually	**a.** Completed Y/N **b.** Effective Y/N **c.** Summary of Activities **d.** Copy of Map and List	FCPH FSWCD	**3-03**
IDDE Plan	A completed, stand alone, updatable plan that serves as a reference and guide for monitoring the City's MS4 for dry weather flows and illicit discharges.	Update and maintain a plan to detect and eliminate non-storm water discharges, including illegal dumping to the MS4.	Annually	**a.** Completed Y/N **b.** Effective Y/N **c.** Summary of Activities **d.** Copy of Plan	Water Resource Engineer, City of Gahanna	**3-04**
Dry-Weather Screening of Outfalls	There will be dry weather screening at locations that had been identified the previous year as having potential or obvious illicit discharges and approximately 20% the total MS4 outfalls.	Continue with long-term surveillance of outfalls via dry weather screening	Annually	**a.** Completed Y/N **b.** Effective Y/N **c.** # Outfall Screened **d.** # of Dry Weather Flows Identified **e.** # of Illicit Discharges Identified / Eliminated **f.** Summary of Activities	Special Projects Director, FSWCD	**3-05**
Report Sanitary Sewage Discharges to Ohio EPA	Illicit sanitary sewer cross connections, or leaking or broken sanitary sewer lines actively contributing sewage to the MS4 will be reported to the Ohio EPA at *cdo24hournpdes@epa.ohio.gov* within 24 hours after detection	Report sanitary sewage discharges to the Ohio EPA within 24 hours after detection	Annually	**a.** # of detections **b.** # and timing of reports to OEPA	Water Resource Engineer, City of Gahanna Special Projects Director, FSWCD	**3-06**
Employee, Business and Resident Education	Employees, residents and business will know how to recognize and report stormwater pollution to the City Water Resource Engineer, Franklin County Public Health and Ohio EPA as appropriate.	a. Educate residents on how to recognize and report pollution with information on the City's Website and through public education efforts. b. Educate businesses on how to recognize and report pollution through the water quality partner program described in MCM 1&2. c. Educate employees on how to recognize and report pollution though annual good housekeeping trainings.	Annually	**a. and b**. See MCM 1 & 2 **c**. See MCM 6	Water Resource Engineer, City of Gahanna Stormwater Program Coordinator, FSWCD	**3-07**

MCM 4 CONSTRUCTION SITE STOMWATER RUNOFF CONTROL

BMP	Measurable Goal	Standards and/or Activities Summary	Schedule	Tracking Parameter and Documentation	Responsible Party	ID
Ordinance or Other Regulatory Mechanism	Ensure that Gahanna has adequate ordinances and other regulatory mechanisms in place.	**a.** Chapter 1193, Stormwater Management Policy https://library.municode.com/oh/gahanna/codes/code_of_ordinances?nodeId=PTELEVENPLZOCO_TITFIVEFLZO_CH1193STMAPO **b.** Chapter 1195, Erosion and Sedimentation/ Post construction Runoff Control https://library.municode.com/oh/gahanna/codes/code_of_ordinances?nodeId=PTELEVENPLZOCO_TITFIVEFLZO_CH1195ERSEPOCORUCO	Annually	**a.** Completed Y/N **b.** Effective Y/N	Water Resource Engineer City of Gahanna	**4-01**
Sediment and Erosion Control Requirements	Ensure that Gahanna has adequate ordinances, procedures and other regulatory mechanisms in place.	**a.** Chapter 1195, Erosion and Sedimentation/ Post construction Runoff Control **b.** Ohio EPA's Rainwater and land Development Manual https://epa.ohio.gov/dsw/storm/rainwater	Ongoing	**a.** Completed Y/N b. Effective Y/N	Water Resource Engineer City of Gahanna	**4-02**
Complaint Process	Continue the complaint process already established which follows-up on 100% of received complaints.	**a.** Review and update complaint process as necessary **b.** Track and follow-up on 100% of received complaints	Ongoing	a. # of Complaints received / Followed-up on	Water Resource Engineer, City of Gahanna	**4-03**
Site Plan Review Procedures	Review all construction site plans when construction disturbs more than 1 acre.	**a.** Plans reviewed for natural resource concerns including soils, drainage, and stream buffers **b.** Construction plans reviewed with checklist for issues related to soil erosion and sediment control practices as well as construction sequence **c.** Ensure approved plan is in place before construction begins	Ongoing	**a.** # and location of applicable sites requiring plans **b.** # of plans reviewed **c.** Checklists completed and filed	Urban Conservation Specialist FSWCD	**4-04**
Site Inspection Procedures	Ensure all active construction sites over an acre are well planned and inspected for compliance with stormwater regulations.	**a.** Biweekly site inspections performed with checklist during active construction. b. Monthly inspections performed on non-active, complying construction sites. **b.** Necessary changes recommended to appropriate developer representative **c.** Additional site inspections performed as necessary to ensure compliance **d.** Guidelines followed to ensure enforcement at noncompliant sites	Biweekly	**a.** # and location of applicable sites **b.** # of Inspections performed **c.** Average frequency **d.** Inspection forms completed and filed	Urban Conservation Specialist, FSWCD Water Resource Engineer, City of Gahanna	**4-05**
Enforcement Procedures	Ensure that Gahanna has adequate enforcement procedures and that they are being followed so that non-compliance is addressed.	Enforcement actions are taken as required under enforcement procedures.	Ongoing	**a.** # of Violation Letters **b.** # of Enforcement Actions **c.** Summary of Results	Planning and Zoning Administrator, City of Gahanna	**4-06**

MCM 5 POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

BMP	Measurable Goal	Standards and/or Activities Summary	Schedule	Tracking Parameter and Documentation	Responsible Party	ID
Ordinances and other Regulatory Mechanisms	Ensure that Gahanna has adequate ordinances and other regulatory mechanisms in place.	Chapter 1193.03 Stormwater Ruoff Control Criteria https://library.municode.com/oh/gahanna/codes/code_of_ordinances?nodeId=PTELEVENPLZOCO_TITFIVEFLZO_CH1193STMAPO_1193.06STRUCOCR Chapter 1195, Erosion and Sedimentation/ Post Construction runoff Control, https://library.municode.com/oh/gahanna/codes/code_of_ordinances?nodeId=PTELEVENPLZOCO_TITFIVEFLZO_CH1195ERSEPOCORUCO 1195.05, Post-construction Runoff Control 1195.06 Maintenance and Operation Plans 1195.07-1195.99 Fees, enforcement, violations, appeals, and penalty	Ongoing	**a.** Completed Y/N **b.** Effective Y/N	Water Resource Engineer, City of Gahanna	**5-01**
Post-Construction Requirements	Ensure that Gahanna has adequate ordinances and other regulatory mechanisms in place.	**a.** Continue to comply with and enforce post construction requirements **b.** Update map of post-construction BMPs as needed	Ongoing	**a.** Completed Y/N **b.** Effective Y/N **c.** Summary of Activities	Water Resource Engineer City of Gahanna	**5-02**
Site Plan Review Procedures	Procedures are in place and followed to review site plans for post-construction requirements as listed in Ohio EPA's general construction permit and Gahanna chapter 1195.	**a.** Review post construction facilities during SWPPP plan review using plan review checklist. **b.** Ensure an approved plan is in place before construction commences.	Ongoing	**a.** # and location of applicable sites requiring post construction BMP's **b**. # of plans reviewed **c.** Plan review sheets completed and filed (see MCM 4).	Water Resource Engineer, City of Gahanna Franklin Soil and Water Staff FSWCD	**5-03**
Site Inspection Procedures	Follow existing procedures for site inspection of post-construction control requirements, conducting ongoing inspections to ensure that stormwater practice is operating properly for water quality protection.	**a.** Request and receive as built surveys for post construction facilities. **b.** Ensure post construction facilities are installed and functioning properly before occupancy **c.** Send annual notifications and request proof of maintenance and note ownership changes. **d.** Inspect each facility once over the permit term.	Ongoing	**a.** # of Site Inspections Performed **b.** # of sites operating as designed.	Water Resource Engineer, City of Gahanna Urban Conservation Specialist, FSWCD	**5-04**
Enforcement Procedures	Follow existing procedures to ensure that non-compliance on post construction facilities is resolved.	**a.** Take enforcement action when compliance can not be achieved.	Ongoing	**a.** # of Violation Letters **b.** # of Enforcement Actions	Water Resource Engineer, City of Gahanna	**5-05**
Long-Term O&M Plans/Agreements	During post construction meeting ensure O&M agreements are in place and responsibilities are understood.	**a.** Through annual communications ensure that the current owner of property is aware of and understands O&M plan. **b.** Track changes in ownership when sending annual mailings.	Ongoing	**a.** Completed Y/N **b**. Effective Y/N **c**. # and location of sites requiring agreements **d.** # of plans developed and agreements in place **e.** Summary of activities	Water Resource Engineer, City of Gahanna	**5-06**
TMDL Focused Activities	Provide an annual educational opportunity on Table 4b (from the Construction General Permit)/green infrastructure practices.	**a.** Ensure contractors are receiving urban review newsletter and provide at least one green infrastructure related topic in Urban Review Newsletter. **b.** Ensure green infrastructure is addressed in a webinar or central ohio roundtable event.	Annually	a. Copy or link to newsletter. b. Sign in sheet for event	Water Resource Engineer, City of Gahanna Urban Conservation Specialist, FSWCD	**5-07**
	Require Table 4b practices and/or green infrastructure practices and retrofit a peak-discharge storm water practices	a. Green Infrastructure implemented on new development sites where feasible. b. Continue to look for opportunitines to retrofit stromwater practices improve stream corridors.	Ongoing	Records, plans, photos and/or other documentation of the project		**5-08**

MCM 6 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPLE OPERATIONS

BMP		Measurable Goal	Activities Summary	Schedule	Tracking Parameter and Documentation	Responsible Party	ID
Employee Training Program		Employees involved with park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance will attend one workshop or training a year. Programs are to include discussion of IDDE topics.	**a.** Hold good housekeeping training focused on topics related to facility and MS4 management including recognizing illicit discharges. **b**. Employees will also have access to training provided by Franklin Soil and Water for developer outreach.	Annually	**a.** Topics **b.** Target Audience **c.** # of Employees Attended **d.** Summary of Activities	Water Resource Engineer City of Gahanna	**6-01**
List of Facilities Subject to Program		Ensure all facilities that are required to have an up to date SWPPP as outlined by the stormwater permit and that employees understand and are following proper procedures for pollution prevention.	**a.** Update SWPPP and facility procedures, updating list of subject facilities as needed **b.** Conduct quarterly facility inspections to ensure employees are following proper procedures.	Annually and Quarterly	**a.** O & M Procedures Developed Y/N **b.** # Facility Inspections Performed **c.**. Frequencies of Such Inspections **d.** Inspection Forms completed and filed.	Water Resource Engineer, City of Gahanna	**6-02**
MS4 Maintenance		Inspect and clean all catch basins and structures based on established schedule.	Maintain regular schedule for cleaning catch basins and structures.	Ongoing	Summarize Activities Performed	Water Resource Engineer City of Gahanna	**6-03**
		Ensure all ditch/MS4 maintenance is seeded and stabilized at the final grade according to the same standards as construction general permit.	Follow prescribed procedures when maintaining ditches	Starting 4/1/2023	Summarize Activities Performed		**6-04**
Proper Stormwater Practices for City Maintenance Activities	**Disposal of Wastes**	100% of all collected leaves, tires, oil and hazardous chemicals disposed of properly and/or recycled.	**a.** Maintain annual list of wastes disposed **b.** Document how wastes are disposed with amounts **c.** Maintain procedures for proper waste disposal	Annually	**a.** Procedures developed Y / N **b.** Amounts and types of wastes properly disposed	Water Resource Engineer City of Gahanna	**6-05**
	Road Salt	Salt piles are provided with cover with no run-on and subsequent run-off of salt, and all brine tanks and/or other liquid road treatments shall have bollards and/or secondary containment.	**a.** Appropriate cover for salt provided **b.** Secondary containment provided for liquid road treatments	Ongoing	**a.** Salt covered Y/N **b.** Secondary confinement for brine tanks provided Y/N		**6-06**
		Properly apply salt in a way that minimizes usage.	**a.** Document tons of salt used each year **b.** Maintain or refine procedures for reducing salt use	Annually	**a.** Procedures developed and refined to minimize salt usage Y/N **b.** Tons used **c.** Measures taken to minimize usage		**6-07**
	Pesticide and Herbicide Usage	Properly manage use of pesticides and herbicides	**a.** Document amount of pesticide and herbicide used **b.** Develop and maintain procedures for reducing pesticide and herbicide use	Ongoing	**a.** Procedures developed Y / N **b.** Gallons and/or pounds used **c.** Measures taken to minimize usage		**6-08**
	Fertilizer Usage	Decrease use of fertilizer	**a.** Document amount of fertilizer used **b**. Develop and maintain procedures for reducing fertilizer use	Ongoing	**a.** Procedures developed Y / N **b.** Gallons and/or pounds used **c.** Measures taken to minimize usage		**6-09**
	Street Sweeping		**a.** Minimize trash, grits, and other pollutants in the street which may be transferred to the storm water system **b.** Document and maintain street sweeping schedule **c.** Record amount of material collected and disposed, if possible	Ongoing	**a.** Street sweeping schedule **b.** Amount of material collected and properly disposed		**6-10**

BMP		Measurable Goal	Activities Summary	Schedule	Tracking Parameter and Documentation	Responsible Party	ID
TMDL Focused Activity	**Quarterly Insepction**	Conduct Quarterly Site Inspections at listed facilities in accordance to permit requirements.	Quarterly site inspection and documentation will record: -The inspection date and time -The name(s) and signature(s) of the inspector(s) -Weather information - Description of discharges occurring during inspection -Previously unidentified discharges of pollutants -Any control measures needing maintenance or repairs -Any failed control measures that need replacement -Any incidents of failure to implement your SWPPP -Any additional control measures needed	Quarterly starting 4/1/23	a. Completed Inspection Forms b. Documentation of any actions taken or non-compliance corrected.	Water Resource Engineer	**6-11**
Flood Management Projects		Ensure storm water management is considered for all flood management projects.	**a.** Track new or existing flood management projects assessed for impacts on waterways	Ongoing	**a.** Summarize any new or existing Flood Management Projects that were Assessed for Impacts on Water Quality	City of Gahanna	**6-12**