PAXTANG BOROUGH STORMWATER MANAGEMENT PROGRAM (SWMP)

January 8, 2016



OFFICE 3423 DERRY STREET HARRISBURG, PA 17111 (717) 564-4770

Prepared by:

TABLE OF CONTENTS

	<u>PAGE</u>
MCM 1	PUBLIC EDUCATION AND OUTREACH PROGRAM (PEOP)
	INTRODUCTION
	PURPOSE OF THE PLAN
	TARGET AUDIENCE GROUPS
	EDUCATIONAL INFORMATION – IMPLEMENTATION5
	PLAN FOR ADDITIONAL OUTREACH
MCM 2	PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM (PIPP)
	INTRODUCTION9
	ORDINANCE ADOPTION11
	PLAN FOR PUBLIC INVOLVEMENT AND PARTICIPATION11
	FUTURE CONSIDERATIONS FOR PUBLIC INVOLVEMENT AND PARTICIPATION12
MCM 3	ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM (IDD&E)
	INTRODUCTION
	IDENTIFICATION OF PRIORITY AREAS AND ASSESSMENT OF IDD&E POTENTIAL14
	ILLICIT DISCHARGE FIELD MONITORING AND SOURCE IDENTIFICATION17
	ILLICIT DISCHARGE ELIMINATION AND PREVENTION18
	ANNUAL PROGRAM DOCUMENTATION, EVALUATION, AND ASSESSMENT
	APPENDIX: OUTFALL AND STORM SEWER MAPPING20
	APPENDIX: OUTFALL RECONNAISSANCE INVENTORY/SAMPLE COLLECTION FIELD SHEET21
MCM 4	CONSTRUCTION SITE STORMWATER RUNOFF CONTROL23
	APPENDIX: 2014/2015 MEMORANDUM OF UNDERSTANDING (MOU)24
MCM 5	POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) IN NEW AND RE-
	DEVELOPMENT ACTIVITIES
MCM 6	POLLUTION PREVENTION/GOOD HOUSEKEEPING PLAN (PPGHP)27
	GOOD HOUSEKEEPING OPERATION & MAINTENANCE PROGRAM

Public Education and Outreach Program (PEOP) Paxtang Borough, Dauphin County

INTRODUCTION

Paxtang Borough's small Municipal Separate Storm Sewer System (MS4) collects stormwater runoff and manages the runoff through stormwater management facilities including, but not limited to, inlets, pipes, swales, and basins. Much of this runoff is ultimately discharged at various identified outfall locations to surface waters that include Spring Creek and an unnamed tributary to Spring Creek (Parkway Creek). The health and quality of these surface waters and waters downstream are directly impacted by stormwater runoff.

Paxtang Borough's MS4 coverage under the Commonwealth's General Permit (PAG-13), #133554, is valid from April 1, 2013 through March 31, 2018. Paxtang Borough is a renewal permittee as the previous permit covered activities from 2003. Annual reporting to the Pennsylvania Department of Environmental Protection (PA DEP) is required, since the entirety of the borough is located within the Chesapeake Bay watershed. The Borough will monitor the entire Stormwater Management Program (SWMP) and update as necessary, including this Public Education and Outreach Program (PEOP) targeting MCM #1. As part of the Borough's authorization to discharge waters from the MS4 to surface waters of the Commonwealth, there are specific requirements that include public education and outreach in water quality improvement issues.

Appendix A of the MS4 General Permit contains the six Minimum Control Measures, or MCMs, required of Paxtang Borough under the Phase II NPDES Stormwater Regulations. Portions of these federal regulations are incorporated into Pennsylvania regulations, and within each MCM, Pennsylvania is requiring the implementation of several Best Management Practices (BMPs). Associated with each BMP are Measurable Goals defined by PA DEP to guide reporting and evaluation of the permittee's SWMP accomplishments. The requirements for MCM #1 are stated below:

MCM #1: Public Education and Outreach on Stormwater Impacts

• Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff (40 CFR Part 122.34(b)(1)(i)).

BMP #1: Develop, implement and maintain a written Public Education and Outreach Program.

<u>Measurable Goal:</u> For new permittees a Public Education and Outreach Program (PEOP) shall be developed and implemented during the first year of coverage under this General Permit and shall be reevaluated each permit year thereafter and revised as needed. For renewal permittees, the existing PEOP shall be reviewed and revised as necessary. The permittee's PEOP shall be designed to achieve measurable improvements in the target audience's understanding of the causes and impacts of stormwater pollution and the steps they can take to prevent it.

BMP #2: Develop and maintain lists of target audience groups that are present within the areas served by your regulated small MS4s. In most communities, the target audiences shall include residents, businesses (including commercial, industrial and retailers), developers, schools, and municipal employees.

<u>Measurable Goal:</u> For new permittees, the lists shall be developed within the first year of coverage under the permit and reviewed and updated as necessary every year thereafter. For renewal permittees, the lists shall continue to be reviewed and updated annually.

BMP #3: You must annually publish at least one issue of a newsletter, a pamphlet, a flyer, or a web site that includes general stormwater educational information, a general description of your Stormwater Management Program, and/or information about your stormwater management activities. The list of publications and the content of the publications must be reviewed and updated at least once during each year of permit coverage. Publications should include a list of references (or links) to refer the reader to additional information (e.g., PA DEP and US EPA stormwater websites, and any other sources that will be helpful to readers). You must implement at least one of the following alternatives:

- a. Publish and distribute in printed form a newsletter, a pamphlet or a flyer containing information consistent with this BMP.
- b. Publish educational and informational items including links to DEP's and EPA's stormwater websites on your municipal website.

<u>Measurable Goals:</u> For new permittees, stormwater educational and informational items shall be produced and published in print and/or on the Internet within the first year of permit coverage. In subsequent years (and for renewal permittees), the list of items published and the content in these items shall be reviewed, updated, and maintained annually. Your publications shall contain stormwater educational information that addresses one or more of the 6 MCMs.

BMP #4: Distribute stormwater educational materials and/or information to the target audiences using a variety of distribution methods, including but not limited to: displays, posters, signs, pamphlets, booklets, brochures, radio, local cable TV, newspaper articles, other advertisements (e.g., at bus and train stops/stations), bill stuffers, posters, presentations, conferences, meetings, fact sheets, giveaways, storm drain stenciling.

<u>Measurable Goal:</u> All permittees shall select and utilize at least two distribution methods in each permit year. These are in addition to the newsletter and website provisions of BMPs #3 and #4.

PURPOSE OF THE PLAN

Paxtang Borough, Dauphin County has a population of 1,561 residents, according to the 2010 U.S. Census, which represents a 0.6% decrease since 2000. With a mix of homes, businesses, and industries, the water quality of Paxtang Borough streams can be negatively impacted by pollutants conveyed via stormwater runoff. Successful public education and outreach efforts should result in a greater number of people within Paxtang Borough that are aware of these issues affecting water quality. With increased awareness, there is an increased chance that water quality improvement can be realized through collective action.

In order for Paxtang Borough to improve its communication with the public and achieve positive results, the following goals for the PEOP are established:

- Meet the requirements of the MS4 General Permit.
- Strengthen the linkage between land use activities and water quality and flooding.
- Increase community involvement in watershed protection activities through awareness, education, and action.
- Make target audience groups aware that they live and/or operate in a watershed and that their day-to-day activities affect water quality.
- Inform and educate the target audience groups about the causes of stormwater pollution and the effects on local streams and rivers.
- Emphasize the storm sewer system as an important component of municipal infrastructure (on par with the sanitary sewer system) and why pollutants from a variety of sources must be eliminated from the system.
- Connect pollution reduction efforts to decreased water treatment costs.

The purpose of this PEOP is to identify target audience groups and to determine the most effective methodology to convey information to each of these groups. Publishing articles in the Borough Newsletter will reach most target audience groups but not all. Therefore, Paxtang Borough will pursue customized outreach for each of the identified target audience groups.

TARGET AUDIENCE GROUPS

Paxtang Borough has identified the following target audience groups:

- Residents/Homeowners
- Businesses/Industries
- Local Governmental Agencies (Municipal and Special-Purpose)
- Developers and Contractors
- Community-based Organizations

Below are descriptions of these target audience groups, their significance and relationship to stormwater, ways in which they receive distributed information, and educational initiatives to consider.

Residents/Homeowners – This group includes borough residents as well as new and old developments. Property size is generally small (under ½ acre), and these lots are likely to be served by a storm sewer system that includes inlet boxes, pipes, and curbed streets. These residents and neighborhoods are exposed to the most stormwater infrastructure and therefore have a great impact on improving water quality. They will receive the newsletter, pick up material available at the Borough building, and acquire zoning, stormwater, and building permits for residential projects that propose to increase impervious area. This group has the potential to positively impact stormwater through the following educational initiatives:

- Importance of managing stormwater associated with the increase of impervious coverage.
- Improved understanding of how a storm sewer system works, where it drains to, and why dumping any substance into it has a negative impact on water quality.
- Improved understanding of NPDES-required BMP inspection and maintenance.
- Proper lawn fertilization technique, as well as proper frequency and amount of application.
- Wide-ranging benefits of utilizing green practices to capture and infiltrate stormwater runoff generated by an individual lot.

Businesses/Industries – The business community can have a large impact on water quality, and successful public education and outreach can potentially leverage pooled financial resources and sponsorship of watershed restoration activities. The focus of educational materials should include the following:

- Businesses that have a physical location within the borough can support public education and outreach efforts by displaying posters, distributing handouts, sponsoring events, etc.
- Improved understanding of NPDES-required BMP inspection and maintenance.
- Non-residential land uses that involve the routine use of cleaners, chemicals, or other types of process liquids and have the potential for these substances to end up in the storm sewer system.
- Green infrastructure techniques, such as rain gardens, can help to manage stormwater runoff from the larger impervious areas of non-residential uses.

Local Governmental Agencies (Municipal and Special-Purpose) – In Paxtang Borough, this target audience group and intended educational outreach refers specifically to Central Dauphin School District and the municipal staff of the Borough.

Central Dauphin School District – The school district includes the municipalities of Paxtang Borough, Dauphin Borough, Lower Paxton Township, Middle Paxton Township, Penbrook Borough, Swatara Township, and West Hanover Township, and serves as an education and outreach outlet to children and their families. Water quality education and hands-on experiences should be vital components of the curriculum, and the Dauphin County Conservation District's Water Resource Program has provided and continues to provide educational resources for students in Central Dauphin School District. In reaching the members of this target audience group, it is important to acknowledge that:

Future generations hold the key to continued success in improving water quality.

- Improved understanding of NPDES-required BMP inspection and maintenance is needed.
- Students at all grade levels should be able to understand the sources, allowable amounts, and effects of common pollutants. A specific target of the Borough is Paxtang Elementary School.

Municipal Staff – Paxtang Borough owns and maintains a municipal garage. The Borough will continue to implement proper operational practices to reduce impacts on water quality. The Pollution Prevention/Good Housekeeping Plan (PPGHP) will be used to develop these best management practices.

- Municipal staff must lead by example and employ good housekeeping principles at the municipal garage, the Borough building, and community parks.
- Training will continue to be critical to instill best practices in employees.

Developers and Contractors – This group does business within the borough without necessarily having an established business location in the borough. This group is vitally important in the water quality conversation, as their practices can have a large impact on stormwater runoff and pollution.

All land-disturbing activities, including clearing, grading, and excavation, that disturb 1 or more
acres are required to be covered under a state or EPA-issued NPDES construction stormwater
permit prior to land disturbance.

Community-based Organizations – These include, but are not limited to, the Paxtang Historical Society, the Paxtang Art Association, the Paxtang Shade Tree Commission, the Lenker Manor Paxtang Women's Club, the Paxtang Lions Club, the Wilhelm Paxtang Baseball Association, the Swatara-Paxtang Softball Association, the Paxtang Swatara Community Library, local churches, and faith-based organizations. This group, as a whole, can bring together multiple target audience groups for specific projects that protect and enhance water resources. There is an opportunity to work with these groups as partners on specific projects to increase awareness and improve stormwater quality.

EDUCATIONAL INFORMATION – IMPLEMENTATION

The Borough provides much educational information through printed materials that include the Borough newsletter and the local newspaper, as well as online material on the Borough's website (http://www.paxtang.org/). Additionally, the Dauphin County Conservation District conducts public education and outreach activities on behalf of the Borough. All of this information reaches a wide range of target audience groups and is listed in the following table:

PUBLICATION	INFORMATION CONVEYED	METHOD AND TIMING OF DISTRIBUTION	WHO IT REACHES
"Paxtang Post" – Paxtang Borough Newsletter	Includes information for residents on stormwater runoff and steps that residents can take to address runoff issues	Mailed to all mailboxes and post office boxes within the Borough, distributed quarterly	All Target Audience Groups, except for Developers/Contractors

PUBLICATION	INFORMATION CONVEYED	METHOD AND TIMING OF DISTRIBUTION	WHO IT REACHES
Stormwater Management Education Newspaper Advertisement	Includes information on sources of stormwater pollution and suggested solutions	Ad published annually in the Harrisburg Patriot News	All Target Audience Groups
"Clean Water is Everyone's Responsibility"	Includes recommended actions to prevent stormwater runoff pollution	One-time distribution to 78 schools in MS4 areas of Dauphin County	Central Dauphin School District
"Benefits of Low Impact Development"	Definition of Low Impact Development (LID) and Benefits and Techniques of LID	Annual distribution to 58 different developers and contractors in Dauphin County	Developers and Contractors

At the end of each permit year, Paxtang Borough will review and update the PEOP as well as the list and content of the items that are published and distributed to the target audience groups. Strategies to conserve staff time and budget will include partnering with community-based organizations, the use of electronic contact methods, and continuing to rely on the Dauphin County Conservation District for public education and outreach activities.

The Borough's message must reach the different target audience groups identified in the previous section. The overarching message of this PEOP is summarized by these principles:

- Water quality improvements are made on small and large scales by the target audience groups.
- Watershed awareness leads to a stronger connection between people and water resources.
- Identifying and mitigating current sources of pollution and sedimentation to waters of the Commonwealth goes a long way toward improving water quality.
- When armed with good information, many individuals will choose to make decisions that benefit the common good.
- Cost-efficient and/or naturally-based solutions often involve simple techniques that many people are able to implement.

PLAN FOR ADDITIONAL OUTREACH

In addition to the Borough's printed and online materials and the Dauphin County Conservation District's activities, the Borough will consider implementing the following outreach methods:

- Discuss stormwater management and the SWMP at a Borough Council meeting in the fall of each year and publicly advertise the meeting
- Distribute pamphlets for contractors with all building permits
- Engage nonprofit organizations to implement programs such as inlet stenciling
- Provide a table with MS4 materials at the Borough's annual Memorial Day picnic and have persons at the table to discuss the information with residents.

THIS PAGE INTENTIONALLY LEFT BLANK

Public Involvement and Participation Program (PIPP) Paxtang Borough, Dauphin County

INTRODUCTION

Paxtang Borough's small Municipal Separate Storm Sewer System (MS4) collects stormwater runoff and manages the runoff through stormwater management facilities including, but not limited to, inlets, pipes, swales, and basins. Much of this runoff is ultimately discharged at various identified outfall locations to surface waters that include Spring Creek and an unnamed tributary to Spring Creek (Parkway Creek). The health and quality of these surface waters and waters downstream are directly impacted by stormwater runoff.

Paxtang Borough's MS4 coverage under the Commonwealth's General Permit (PAG-13), #133554, is valid from April 1, 2013 through March 31, 2018. Paxtang Borough is a renewal permittee as the previous permit covered activities from 2003. Annual reporting to the Pennsylvania Department of Environmental Protection (PA DEP) is required, since the entirety of the borough is located within the Chesapeake Bay watershed. The Borough will monitor the entire Stormwater Management Program (SWMP) and update as necessary, including this Public Involvement and Participation Program (PIPP) targeting MCM #2. As part of the Borough's authorization to discharge waters from the MS4 to surface waters of the Commonwealth, there are specific requirements that include public involvement and participation in water quality improvement issues.

Appendix A of the MS4 General Permit contains the six Minimum Control Measures, or MCMs, required of Paxtang Borough under the Phase II NPDES Stormwater Regulations. Portions of these federal regulations are incorporated into Pennsylvania regulations, and within each MCM, Pennsylvania is requiring the implementation of several Best Management Practices (BMPs). Associated with each BMP are Measurable Goals defined by PA DEP to guide reporting and evaluation of the permittee's SWMP accomplishments. The requirements for MCM #2 are stated below:

MCM #2: Public Involvement / Participation

• Comply with applicable state and local public notice requirements when implementing a public involvement / participation program (40 CFR Part 122.34(b)(2)(i)).

BMP #1: Develop, implement and maintain a written Public Involvement and Participation Program (PIPP) which describes various types of possible participation activities and describes methods of encouraging the public's involvement and of soliciting the public's input.

<u>Measurable Goal:</u> New permittee's PIPP shall be developed and implemented during the first year of coverage under this General Permit. All permittees shall re-evaluate the PIPP each permit year and revise as needed. Your PIPP shall include, but not be limited to:

a. Opportunities for the public to participate in the decision-making processes associated with the development, implementation, and update of programs and activities related to this General Permit.

- b. Methods of routine communication to groups such as watershed associations, environmental advisory committees, and other environmental organizations that operate within proximity to the permittee's regulated small MS4s or their receiving waters.
- c. Making your periodic reports available to the public on your website, at your municipal offices, or by US Mail upon request.

BMP #2: Prior to adoption of any ordinance required by this General Permit, provide adequate public notice and opportunities for public review, input, and feedback.

<u>Measurable Goal:</u> Advertise any proposed MS4 Stormwater Management Ordinance, provide opportunities for public comment, evaluate any public input and feedback, and document the comments received and the municipality's response.

BMP #3: Regularly solicit public involvement and participation from the target audience groups. This should include an effort to solicit public reporting of suspected illicit discharges. Assist the public in their efforts to help implement your SWMP. Conduct public meetings to discuss the on-going implementation of your SWMP.

Measurable Goals: Conduct at least one public meeting per year to solicit public involvement and participation from target audience groups. The public should be given reasonable notice through the usual outlets a reasonable period in advance of each meeting. During the meetings, you should present a summary of your progress, activities, and accomplishments with implementation of your SWMP, and you should provide opportunities for the public to provide feedback and input. Your presentation can be made at specific MS4 meetings or during any other public meeting. Under this MCM, you should document and report instances of cooperation and participation in your activities; presentations you made to local watershed organizations and conservation organizations; and similar instances of participation or coordination with organizations in your community. You also should document and report activities in which members of the public assisted or participated in your meetings and in the implementation of your SWMP, including education activities or organized implementation efforts such as cleanups, monitoring, storm drain stenciling, or others.

The purpose of this PIPP is to describe various types of possible participation activities and methods of encouraging the public's involvement and of soliciting the public's input. In order for Paxtang Borough to improve its communication with the public and achieve positive results, the following goals for the PIPP are established:

- Meet the requirements of the MS4 General Permit.
- Re-stencil inlets to involve the public and create more awareness among borough residents.
- Solicit public involvement in waterway cleanup or restoration projects.

- Continue to rely on the Dauphin County Conservation District for handling public complaints regarding erosion and sedimentation.
- Continue to implement the Borough tree planting program with the Shade Tree Commission taking the lead.

ORDINANCE ADOPTION

On December 21, 2010, the Paxtang Borough Council adopted a new Stormwater Management Ordinance (SWMO). Below is the appropriate documentation for adoption of the SWMO:

Documentation of SWMO Advertisement

(attached)

Documentation of Public Comment

(attached)

Documentation of Municipal Response

No municipal response required. No public comments were received.

PLAN FOR PUBLIC INVOLVEMENT AND PARTICIPATION

Paxtang Borough will regularly solicit public involvement and participation from the target audiences, and will continue to improve the process for public reporting of suspected illicit discharges. Additionally, Paxtang Borough proposes the following projects that are either being implemented or have the potential to be implemented:

Annual Public Meeting – Paxtang Borough will hold at least one public meeting per year to solicit public involvement and participation from target audience groups and present a summary of the Borough's progress, activities, and accomplishments with ongoing implementation of the SWMP. The public will be encouraged to provide feedback and input.

Paxtang Borough will hold a public meeting in the fall of each year to discuss the current MS4
program and provide an opportunity for members of the public to ask questions or to volunteer
to become involved in water quality projects in the future.

Inlet Stenciling – Stenciling storm drain inlets within various neighborhoods with the help of local residents can create more awareness with people of all ages, especially children. This is particularly effective because it is a hands-on project for those involved, but also one that leaves behind a visual reminder to everyone that passes by the drains stamped with a message such as "Only Rain down the Drain". This can also be effective in encouraging more eyes to keep watch of what is flowing into borough drains and waterways, which is a critical objective of the Illicit Discharge Detection & Elimination Program. Additional assistance from residents could help identify such pollutants early and initiate a prompt cleanup response from the Borough or other emergency responders.

• During the 2015-2016 permit term, Paxtang Borough will re-stencil the inlets where the current condition of the stencil has faded. The Borough will discuss partnership opportunities with community organizations as necessary.

FUTURE CONSIDERATIONS FOR PUBLIC INVOLVEMENT AND PARTICIPATION

There are other opportunities for the public to be involved in water quality improvement efforts, namely during program planning and implementation stages. As noted in the introductory section of this document, the Borough's MS4 permit requires a comprehensive local Stormwater Management Program (SWMP). Although elements of the SWMP have been in place for several years, there are others that have just recently come under consideration, such as the development of the Chesapeake Bay Pollution Reduction Plan. The Borough will continue to evaluate ways in which the public can become more involved in the Borough's Stormwater Management Program.

The Borough will also make public the periodic progress reports of the SWMP on the Borough website and in print at the Borough Office. The Borough will initiate a reporting system beginning with progress made in 2015 and will intend to document accomplishments no less frequently than once per year. Not only does this assist in compiling the required Annual Report for submission to the PA DEP, it can serve as an update to Borough residents. The breadth of the SWMP offers a range of topics to discuss, including public involvement, illicit discharge detection and elimination, and stormwater facility inspections.

Paxtang Borough will continue to improve the process for public reporting of suspected illicit discharges through an Illicit Discharge Detection & Elimination Program. The Borough's website currently includes a Complaint Form for anyone to fill out and submit. The Borough will continue to evaluate the effectiveness of this form as a mechanism for citizen reporting of complaints and continue to look for ways to enhance this program.



Borough of Paxtang Municipal Building - 3423 Derry Street Harrisburg, Penna. 17111

Office of the Secretary Phone: 564-4770 Fax: 561-2020

As Secretary for the Borough of Paxtang, I hereby certify that the attached copy of Ordinance No. 622, An Ordinance of the Borough of Paxtang, Dauphin County, Pennsylvania, Implementing the Requirements of the Dauphin County Stormwater Management Plan is a true and correct copy of the ordinance that has been properly advertised, considered and passed upon by the Paxtang Borough Council at the Regular Business Meeting on December 21, 2010.

Faye A. Clark, Secretary

Central Pennsylvania's Largest Waskiy Newspaper

Fax (717) 657-3523 The Paxton Herald • 4010 Earl Orive, Horrisburg, PA 17112 • 545-9540

Office & Plant - (PO Box 6310) 101 Lincoln Street Harrisburg, PA 17112

Fast Shore (717) 545-9540 (717) 545-8762

PROOF OF PUBLICATION

STATE OF PENNSYLVANIA COUNTY OF DAUPHIN

Before me, the subscriber, a Notary Public in and for the said County. personally came Lisa M. Carnes who, being duly sworn, doth depose and say that she is CLERK of THE PAXTON HERALD, a newspaper of general circulation published in Harrisburg, Pennsylvania:

That THE PAXTON HERALD was established on the 28th day of June, 1960, and has been published continuously since that date; That the advertisement, of which a copy is attached hereto, was published in the advertising columns of THE PAXTON HERALD in all respects as ordered in the issue(s) of 10-29,11-5 2014.

Affiant further deposes that she is not interested in the subject matter of the aforesaid notice or advertisement, and that the allegations in the foregoing statement as to the time, place and character of publication are true.

NOTICE OF SPECIAL PUBLIC **PAXTANG** BOROUGH MEETING

A Special Meeting of the A Special Meeting of the Council of the Borough of Paxtang will be conducted on Wednesday, November 12th, 2014 at 6:30 p.m. at the Borough Municipal Building, 3423 Derry Street for the purpose of receiving input from Borough residents regarding the elimination. residents regarding the elimi-nation of the Borough Police Department and the contracting of police services to Swatara Township, the Stormwater Management Permit (MS4), and concerning the status of the Borough and considering recommendations for budget preparation.

10-29, 11-5

Sworn and subscribed before me this day of

(Signature of the Affiant)

11/10/14

COMMONWEALTH OF PENNSYLVANIA

NOTARIAL SEAL Carrie Jean Singer, Notary Public Lower Paxton Twp, Dauphin County My commission expires September 07, 2018

Illicit Discharge Detection & Elimination Program (IDD&E) Paxtang Borough, Dauphin County

INTRODUCTION

Paxtang Borough's small Municipal Separate Storm Sewer System (MS4) collects stormwater runoff and manages the runoff through stormwater management facilities including, but not limited to, inlets, pipes, swales, and basins. Much of this runoff is ultimately discharged at various identified outfall locations to surface waters that include Spring Creek and an unnamed tributary to Spring Creek (Parkway Creek). The health and quality of these surface waters and waters downstream are directly impacted by stormwater runoff.

Paxtang Borough's MS4 coverage under the Commonwealth's General Permit (PAG-13), #133554, is valid from April 1, 2013 through March 31, 2018. Paxtang Borough is a renewal permittee as the previous permit covered activities from 2003. Annual reporting to the Pennsylvania Department of Environmental Protection (PA DEP) is required, since the entirety of the borough is located within the Chesapeake Bay watershed. The Borough will monitor the entire Stormwater Management Program (SWMP) and update as necessary, including this Illicit Discharge Detection & Elimination Program (IDD&E) targeting MCM #3. As part of the Borough's authorization to discharge waters from the MS4 to surface waters of the Commonwealth, there are specific requirements that include illicit discharge detection and elimination in water quality improvement issues.

Appendix A of the MS4 General Permit contains the six Minimum Control Measures, or MCMs, required of Paxtang Borough under the Phase II NPDES Stormwater Regulations. Portions of these federal regulations are incorporated into Pennsylvania regulations, and within each MCM, Pennsylvania is requiring the implementation of several Best Management Practices (BMPs). Associated with each BMP are Measurable Goals defined by PA DEP to guide reporting and evaluation of the permittee's SWMP accomplishments. The requirements for MCM #3, BMP #1 are stated below:

MCM #3: Illicit Discharge Detection and Elimination (IDD&E)

- Develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4 (40 CFR Part 122.34(b)(3)(i)).
- Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and locations of all surface waters of the Commonwealth that receive discharges from those outfalls (40 CFR Part 122.34(b)(3)(ii)(A)).
- To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into your storm sewer system and implement appropriate enforcement procedures and actions (40 CFR Part 122.34(b)(3)(ii)(B)).
- Develop and implement a plan to detect and address non-stormwater discharges, including illegal dumping, to your system (40 CFR Part 122.34(b)(3)(ii)(C)).

• Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste (40 CFR Part 122.34(b)(3)(ii)(D)).

BMP #1: You shall develop and implement a <u>written</u> program for the detection, elimination, and prevention of illicit discharges into your regulated MS4s. Your program shall include dry weather field screening of outfalls for non-stormwater flows, and sampling of dry weather discharges for selected chemical and biological parameters. Test results shall be used as indicators of possible discharge sources. The program shall include the following:

- Procedures for identifying priority areas. These are areas with a higher likelihood of illicit discharges, illicit connections or illegal dumping. Priority areas may include areas with older infrastructure, a concentration of high-risk activities, or past history of water pollution problems.
- Procedures for screening outfalls in priority areas during varying seasonal and meteorological conditions.
- Procedures for identifying the source of an illicit discharge when a contaminated flow is detected at a regulated small MS4 outfall.
- Procedures for eliminating an illicit discharge.
- Procedures for assessing the potential for illicit discharges caused by the interaction of sewage disposal systems (e.g., on-lot septic systems, sanitary piping) with storm drain systems.
- Mechanisms for gaining access to private property to inspect outfalls (e.g., land easements, consent agreements, search warrants).
- Procedures for program documentation, evaluation and assessment.

<u>Measurable Goal:</u> For new permittees, the IDD&E program shall be developed during the first year of coverage under this General Permit and shall be implemented and evaluated each year thereafter. For renewal permittees, the existing IDD&E program shall continue to be implemented and evaluated annually. Records shall be kept of all outfall inspections, flows observed, results of field screening and testing, and other follow-up investigation and corrective action work performed under this program.

IDENTIFICATION OF PRIORITY AREAS AND ASSESSMENT OF ILLICIT DISCHARGE POTENTIAL

The outfall and storm sewer collection system mapping, as required by MCM #3, BMP's #2 and #3, is one of the most important tools that Paxtang Borough should use to keep track of outfall screening schedules and to determine priority areas. The mapping can also help to locate the source of an identified illicit discharge by tracing the MS4 back from the point of discharge. These maps will be included as an appendix to this IDD&E Program as well as the downstream outfall chart for each receiving waterway.

Factors for Determining Priority Areas

The mapping will also show the priority areas that Paxtang Borough has identified as well as the regulated MS4 outfalls within them. Priority areas are areas with the highest illicit discharge potential that may need field monitoring on a more frequent basis. According to the Center for Watershed Protection's publication *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments (2004)*, there are as many as ten factors that indicate illicit discharge potential (not all may apply to Paxtang Borough):

- Past Discharge Complaints and Reports
- Poor Dry Weather Water Quality
- Density of Generating Sites or Industrial NPDES Stormwater Permits
- Stormwater Outfall Density
- Age of Subwatershed Development
- Sewer Conversion
- Historic Combined Sewer Systems
- Presence of Older Industrial Operations
- Aging or Failing Sewer Infrastructure
- Density of Aging Septic Systems

In order to determine the geographic extent of priority areas and assess the illicit discharge potential caused by interaction of sewage disposal systems with storm drain systems, the above factors should be taken into consideration along with the evaluation of certain land uses referred to as Common Generating Sites. According to Table A.1 in the IDD&E Guidance Manual (referenced above), if the land use is categorized as posing a medium or high illicit discharge potential, then the use should be considered for inclusion in a priority area. GIS data, containing land use information, can be used to identify where these land uses are located. Identified MS4 outfalls located in close proximity to the following uses will require field monitoring on a more frequent basis.

- Automobile Dealers
- Automobile Parking
- Automobile Recyclers and Scrap Yards
- Automobile Repair
- Food Processing
- Gasoline Stations
- Maintenance Depots
- Municipal Fleet Washing
- Nurseries and Garden Centers
- Oil Change Shops
- Public Works Yards
- Transportation Equipment
- Trucking Companies and Distribution Centers

Identified Priority Areas

Listed below are the identified priority areas in Paxtang Borough and the reasons why they are considered to be priority areas with the highest illicit discharge potential (mapping to be included as an appendix to this IDD&E Program).

PRIORITY AREA 1

- Approximately 10 years ago, an underground fuel tank located in the City of Harrisburg leaked across 29th Street and then migrated to the storm sewer system that outfalls into the Unnamed Tributary to Spring Creek (Parkway Creek). This outfall will be subject to additional monitoring.
- Includes commercial activities that have the potential to produce runoff contaminants.

PRIORITY AREA 2

• Zoned General Business and allows for potential occupants that may be higher contributors to runoff contaminates.

PRIORITY AREA 3

- A large portion of this area is zoned General Business and allows for potential occupants that may be higher contributors to runoff contaminates.
- The remaining area is parking for businesses and the Paxtang Borough municipal building and garage.

ILLICIT DISCHARGE FIELD MONITORING AND SOURCE IDENTIFICATION

BMP #4 under MCM #3 of the MS4 General Permit states that all MS4 outfalls regulated by the Borough's permit must be inspected at least once per five-year permit term. Outfalls located within the previously identified priority areas, however, will be monitored for illicit discharges no less frequently than once per year during varying seasonal and meteorological conditions, such as periods of both low and high groundwater conditions. As previously mentioned, the outfall mapping serves as a guide for Borough Staff to track their field monitoring efforts and locate the appropriate outfalls.

Included as an appendix to this IDD&E Program is the Outfall Reconnaissance Inventory/Sample Collection Field Sheet to be used during the field monitoring process. Basic field monitoring consists of Borough Staff visiting the selected outfalls and observing current conditions. For regulated MS4 outfalls that are located on private property, Borough Staff must present the proper credentials and utilize a common sense and safety first approach. The legal authority for right-of-entry is provided by Section 1002 of the Paxtang Borough Stormwater Management Ordinance (SWMO), adopted December 21, 2010, which states that "persons working on behalf of the Borough shall have the right to temporarily locate on any stormwater BMP in the Borough such devices, as are necessary, to conduct monitoring and/or sampling of the discharges from such stormwater BMP."

If dry weather flow is observed at an outfall during the process of field monitoring, the inspector will observe the flow and surrounding conditions, checking for odor, color, turbidity, sheen, floating/submerged solids, or any unusual features. Photo documentation of the observed discharge will supplement the Outfall Reconnaissance Inventory/Sample Collection Field Sheet. Samples of the discharge will promptly be collected for testing. The Borough will contact its engineer, RETTEW Associates, Inc., who will conduct on site testing or transport the sample to a laboratory for further testing. On site testing capability includes pH, temperature, and residual chlorine. Other on site testing (and lab testing) will be guided by Chapter 11 of the Center for Watershed Protection's publication *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, depending on the characteristics of the discharge. All observations and test results will be recorded on the Outfall Reconnaissance Inventory/Sample Collection Field Sheet. The results of track down efforts will be recorded separately.

Field inspector(s) will attempt to track the discharge back to a probable source using the outfall and storm sewer collection system mapping as a guide, when possible. Other common methods that inspectors may utilize to track down the source include visual inspection at manholes and dye testing. Video testing of sewer lines, which may already be occurring as a standard operational procedure, can also assist with source identification if the illicit discharge may be caused by the interaction of sewage disposal systems with storm drain systems.

ILLICIT DISCHARGE ELIMINATION AND PREVENTION

Follow-up Actions if Issues are Found

Follow-up action will be pursued by the Borough if an illicit discharge can be identified and/or a laboratory analytical test confirms the presence of pollutants in a collected sample. The Borough will contact the landowner and/or operator of the facility suspected of producing the illicit discharge, with the intent of eliminating ongoing or future prohibited discharges into the storm sewer system per Section 1201 of the SWMO. The landowner and/or operator of the facility suspected of producing the illicit discharge will be directed to correct the problem. Subsequent inspections of the affected area will be conducted to ensure that the issue has been eliminated. If conditions persist, actions will be taken pursuant to Section 1105 of the SWMO, including the issuance of a written notice from Paxtang Borough describing a condition of noncompliance. Failure to comply with this written notice may include a fine of not more than \$500 upon conviction of a summary offense.

Educational Outreach to Target Audience Groups

Prevention of illicit discharges into Paxtang Borough's MS4 and waterways depends heavily on the behavior of the target audience groups. Therefore, successful educational outreach and public participation are of prime importance toward prevention of illicit discharges; these overall efforts of Paxtang Borough are detailed more thoroughly in the PEOP and PIPP of the overall SWMP, but information that relates to illicit discharge detection and elimination is listed in the following table:

PUBLICATION	INFORMATION CONVEYED	METHOD AND TIMING OF DISTRIBUTION	WHO IT REACHES
"Paxtang Post" – Paxtang Borough Newsletter	Includes information for residents on stormwater runoff and steps that residents can take to address runoff issues	Mailed to all mailboxes and post office boxes within the Borough, distributed quarterly	All Target Audience Groups, except for Developers/Contractors
Stormwater Management Education Newspaper Advertisement	Includes information on sources of stormwater pollution and suggested solutions	Ad published annually in the Harrisburg Patriot News	All Target Audience Groups
"Clean Water is Everyone's Responsibility"	Includes recommended actions to prevent stormwater runoff pollution	One-time distribution to 78 schools in MS4 areas of Dauphin County	Central Dauphin School District

A critical objective of this IDD&E Program is to increase awareness of what constitutes an illicit discharge and to encourage more eyes to keep watch of what is flowing into borough storm drains and waterways. Additional assistance from target audience groups, especially residents, could help with the identification of pollutants early and initiate a prompt cleanup response from the Borough or other emergency responders. To that end, the Complaint Form that is currently available on the Borough's website allows anyone to report a suspected illicit discharge, and a hard copy of the form could also be made available at the Borough Office. The Borough attempts to promptly respond to any complaints received. Additionally, the Borough will keep all forms as documentation of the actions taken by responders and submit all information to PA DEP in the annual report. Public reporting of suspected illicit discharges increases the monitoring frequency by supplementing Borough outfall screenings and therefore the likelihood of detecting illicit discharges.

ANNUAL PROGRAM DOCUMENTATION, EVALUATION, AND ASSESSMENT

At the conclusion of each permit year, the preparation of the required annual report will detail that permit year's work under the IDD&E Program. The IDD&E portion of the annual report will document the following IDD&E Program components:

- Outfall Reconnaissance Inventory Activity (including results from any lab testing)
- Citizen Complaints/Reports and Follow-Up
- Mapping and Priority Area Updates (including new outfalls and changing land uses)
- Outreach materials

Paxtang Borough will continually evaluate the process for public reporting of suspected illicit discharges through the IDD&E Program and the effectiveness of the Complaint Form as a mechanism for reporting of complaints. The Borough will also assess the distributed IDD&E materials and update as necessary.

APPENDIX OUTFALL AND STORM SEWER MAPPING

January 8, 2016

APPENDIX

OUTFALL RECONNAISSANCE INVENTORY/SAMPLE COLLECTION FIELD SHEET

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Ammonia

Subwatershed:				Outfall	ID:			
Today's date:				Time (I	Military):			
Investigators:				Form c	ompleted by:			
Temperature (°F)):	Rainf	all (in.): Last 24 hours:	La	st 48 hours:			
Latitutde:		Longitude:		GPS U	nit:		GPS LMK #	<i>t</i> :
Camera:				Photo #	ŧs:			
Land Use in Drai	inage Area (Check all	that apply):						
☐ Industrial				Оре	en Space			
Ultra-Urban I	Residential			☐ Inst	itutional			
☐ Suburban Res	sidential			Other:				
☐ Commercial				Known	Industries:			
Notes (e.g, original)	in of outfall, if known):						
	fall Description							
LOCATIO		TERIAL	SHA	1		DIMENSIC		SUBMERGED
	☐ RCP	☐ CMP	☐ Circular	Single		Diameter/Dimen	sions:	In Water:
	□ PVC	☐ HDPE	☐ Eliptical	☐ Double	e			☐ Partially ☐ Fully
Closed Pipe	☐ Steel		Box	Triple				With Sediment:
	Other:		☐ Other:	Other:				☐ No
								☐ Partially ☐ Fully
	☐ Concrete	:				D d		
_	☐ Earthen		☐ Trapezoid			Depth:		
Open drainag	ge □ rip-rap		Parabolic			Top Width:		
	Other:		Other:			Bottom Width: _		
In-Stream		when collecting	samples)					
Flow Present?	☐ Yes	□ No		p to Section	ı 5			
Flow Description (If present)		☐ Moderate		•				
Section 3: Qua	antitative Charac	terization						
			FIELD DATA FOR FI	LOWING	OUTFALLS			
P	PARAMETER		RESULT			INIT	Е	QUIPMENT
□Flow #1	Volume					Liter		Bottle
	Time to fill					Sec		
	Flow depth		, ,,		_	In		Γape measure
☐Flow #2	Flow width		, , , , , , , , , , , , , , , , , , ,			Ft, In		Tape measure
	Measured leng	<u></u>			l l	Ft, In		Tape measure
	Time of trave	e1				S °F	п	Stop watch Thermometer
	Temperature				"II			
	pН				pH	Units	10	est strip/Probe

mg/L

Test strip

Outfall Reconnaissance Inventory Field Sheet

Note

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

THIS PAGE INTENTIONALLY LEFT BLANK

Construction Site Stormwater Runoff Control Paxtang Borough, Dauphin County

The Borough is relying upon PA DEP's statewide QLP (Qualifying Local Program) for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under MCM #4; therefore, all requirements are met for all BMPs under MCM #4.

Through an executed Memorandum of Understanding (MOU), Paxtang Borough acknowledges the Dauphin County Conservation District's specific Erosion and Sediment Pollution Control responsibilities with regard to:

- Resources, Materials and Documents
- Plan Reviews and Permitting
- Inspections
- Notifications
- Municipal Assistance
- Meetings

The current 2014/2015 MOU is included as an appendix to this section.

APPENDIX 2014/2015 MEMORANDUM OF UNDERSTANDING (MOU)

MEMORANDUM OF UNDERSTANDING BETWEEN THE DAUPHIN COUNTY CONSERVATION DISTRICT AND THE BOROUGH OF PAXTANG

WHEREAS, the Dauphin County Conservation District, hereafter referred to as District, and the Borough of Paxtang, hereafter referred to as Municipality, have common areas of responsibility in serving the citizens of the Borough of Paxtang

AND WHEREAS, there are common areas of work that require communication and support of each of these parties to the other party, and

AND WHEREAS, the District and the Municipality desire to formalize their interactions in relation to common programs and responsibilities, and

AND WHEREAS, this Memorandum of Understanding will serve as a foundation for a cooperative and mutually beneficial working relationship between the District and the Municipality,

NOW THEREFORE, the parties agree to jointly enter into this Memorandum of Understanding. The Memorandum of Understanding has 3 component parts as listed herein:

- Erosion and Sediment Pollution Control
- Municipal Separate Storm Sewer Systems
- West Nile Virus Control Program

EROSION AND SEDIMENT POLLUTION CONTROL

Purpose: Erosion and the resulting deposition of sediment in our waterways is the primary pollutant by volume of our streams. Minimizing erosion and sediment pollution of our streams requires initiatives at the state, county and local municipal levels of government. The purpose of this Memorandum of Understanding (MOU) is to serve as a joint commitment to control accelerated erosion and to prevent sediment pollution to the waters of the Commonwealth, which may result from the conduct of earth disturbance activities. This MOU also serves as a basis for stating the role of each party in appropriately updating and administering appropriate Ordinances of the municipality in relation to Erosion and Sediment Pollution Control.

<u>District Responsibilities</u>: In carrying out the intent of this memorandum, the Dauphin County Conservation District shall, within the limits of its capabilities:

1. RESOURCES, MATERIALS AND DOCUMENTS

- A. Provide to the Municipality a schedule of plan review fees and sufficient quantities of all necessary educational and other forms. The District will promptly notify the municipality of any change in the plan review fee schedule and provide updated forms and educational materials in a timely manner.
- B. Upon request, provide all applicants with a DEP Erosion and Sediment Pollution Control Program Manual, National Pollutant Discharge Elimination System (NPDES) permit applications, and related forms, worksheets, checklists and all other forms and documents necessary to successfully prepare an ESPC plan and/or NPDES permit application for discharge of stormwater from construction activities.
- C. Provide the municipality with a year end summary of NPDES and Erosion and Sediment Pollution Control activities within the municipality. The summary is intended to inform the municipality of District activities and document District activities for municipal MS4 permit requirements.
- D. Serve as a repository for all ESPC plans, permit applications, plan and permit reviews, complaints, inspection reports, correspondence and other materials and documents concerning the conduct of earth disturbance activities permitted under the municipal ordinance. All such information shall be contained in a dedicated filing system, which shall be available for inspection by municipal officials at any time.
- E. The District will maintain information and materials on its website related to NPDES permitting and the ESPC program. Municipalities may provide links to the District website from municipal websites. This activity provides additional outreach and satisfies relevant MS4 requirements.

2. PLAN REVIEWS AND PERMITTING

- A. Receive all applications and plans required by NPDES permitting regulations and complete administrative and technical reviews within time frames established by DEP.
- B. Receive all ESPC plan, required by municipal ordinance or submitted voluntarily, and complete reviews of the plans within time frames established by the District.

3. INSPECTIONS

- A. The District will inspect earth disturbance activities to ensure that the approval, implementation and maintenance of the ESPC plan and ESPC practices are in compliance with the NPDES program and Chapter 102 regulations.
- B. Inspections will be performed:
 - 1. At a minimum, in compliance with DEP inspection schedules for permitted projects
 - 2. At the request of the municipality

- 3. In response to a complaint from the municipality or the public
- 4. Routinely, as time may allow

4. NOTIFICATIONS

- A. Within 10 calendar days of completion the District will forward to the municipality and applicant or responsible party:
 - 1. Notice of NPDES permit decisions including permit and plan approvals and renewals, deficiency letters, denials and withdrawals.
 - 2. Notice of ESPC plan decisions where NPDES permits are not required including approvals and deficiency letters
 - 3. Inspection reports resulting from complaints investigations and other inspections

5. MUNICIPAL ASSISTANCE

- A. The District will assist the municipality with environmental problems, permit applications and resource management issues within the scope of the District's role under the NPDES and Chapter 102 program. The District will enlist assistance from cooperating agencies where appropriate.
- B. The District will provide an invitation to the municipality to all appropriate educational events.
- C. At the request of the municipality, the District will review appropriate sections of municipal stormwater management and subdivision and land development ordinances and make recommendations for consistency with current Chapter 102 regulations and NPDES permit requirements.

6. MEETINGS

- A. The District will invite the municipality to all scheduled pre-application meetings. Where the District is not the entity organizing the meeting, the District will recommend to the meeting organizer that the municipality be invited. Attendance and choice of representative is at the discretion of the municipality.
- B. District staff, at the request of the municipality, will meet with municipal representatives to provide information or to discuss issues related to NPDES permitting and Chapter 102 regulations.
- C. District staff, where appropriate, will notify the municipality of any site meetings related to inspections, violations or complaints and invite the municipality to attend these meetings.

Municipal Responsibilities: In carrying out the intent of this memorandum, the municipality shall:

1. RESOURCES AND INFORMATION

- A. Inform those involved with earth disturbance activities of any municipal Erosion and Sediment Pollution Control and NPDES permitting Ordinance requirements.
- B. Retain a sufficient quantity of the application form for ESPC plans and issue such information to all proposed earth disturbance projects that require review and approval in accordance with the provisions of the municipal ordinance. The municipality shall provide instructions as necessary to have the plans submitted to the Dauphin County Conservation District.
- C. Distribute fact sheets and other materials provided by the District to all applicants for building permits and subdivision or land development approval.
- D. Retain all correspondence from the District including copies of inspection reports, permit authorizations, denials and withdrawals, notices of violation, ESPC plan approvals and other correspondence needed by the municipality for MS4 permit documentation or other municipal purposes.

2. NOTICE AND REFERRAL TO THE DISTRICT

- A. Forward all third party complaints concerning earth disturbance activities to the District.
- B. Forward all questions related to the preparation of ESPC plans and NPDES permit applications to the District
- C. Notify the District of the receipt of a building permit application involving earth disturbance of one acre or more within five working days of receipt.

3. MUNICIPAL APPROVALS AND ACTIONS

- A. Before issuing any permits or approvals, with the exception of local stormwater approvals, the municipality will require evidence of an issued Individual NPDES permit, authorized General NPDES permit or approved ESPC permit if required, or an approved ESPC plan where municipal regulations require an approved ESPC plan where NPDES or ESPC permits are not required.
- B. Where violations of Chapter 102 or NPDES permitting regulations are discovered, the municipality will cooperate with the District to document and resolve the violations. Cooperation may entail providing access or copies of approved subdivision or land development plans, issued permits, review comments, revocation of municipal permits and other reasonable measures legally and practically available to the municipality.
- C. Encourage the preservation and responsible use of all of our natural resources.

WEST NILE VIRUS CONTROL PROGRAM

<u>Purpose:</u> The Dauphin County Conservation District's West Nile Virus Control Program is an integrated mosquito management (IMM) program focused on reducing mosquito populations within Dauphin County. The program utilizes education, mosquito surveillance, mosquito breeding habitat elimination and mosquito control to decrease numbers of mosquitoes within Dauphin County to reduce the risk of human acquisition of West Nile Virus. The Dauphin County IMM Program is based on sound entomological data collection to provide temporal and biological data. This data enables us to implement a mosquito abatement program relying upon habitat elimination and larval mosquito control as a foundation for the reduction of WNV levels within the county.

<u>District Responsibilities:</u> In carrying out the intent of this memorandum, the Dauphin County Conservation District shall, within the limits of its capabilities:

- A. Provide educational outreach that will be focused at urban and agricultural communities to facilitate the elimination of mosquito breeding habitat in these areas. These programs will use both literature pertaining to WNV and basic mosquito biology, and there will be informational presentations aimed at these same geographical areas conveying information pertaining to Mosquito biology/behavior and WNV epidemiology.
- B. Aggressively execute larval mosquito control using a variety of control products. The product to be used will be site and mosquito species specific, and is dependent upon the specific habitat type and the entomological data for the site. There will be a continuous larviciding program aimed at any mosquito breeding habitats including catch basins in the urban areas of Dauphin County. Primarily, the biological larvicides Bacillus thuringiensis var. israelensis and Bacillus sphaericus will be used to reduce mosquito population levels. We will also utilize additional products such as Methoprene and Monomolecular Films when habitat type or biological data indicate that these products would be more efficacious.
- C. Conduct adult and larval mosquito surveillance at various locations in the county based on previous seasons' data and the elucidation of new mosquito breeding locations and citizen complaint calls. We will rely upon both carbon dioxide baited traps as well as gravid traps to monitor local adult mosquito populations. The type of trap used will be dictated by habtat type and historical and contemporary larval taxonomic data. These traps will be placed at known mosquito breeding locations as well as in areas of high population densities. We will increase our number of traps in some areas as epidemiological data comfirms WNV activity in particular areas.
- D. Perform adult mosquito control when epidemiological and entomological data show that adult mosquito and virus levels are high enough to put the local human population at significant risk of WNV infection.
- E. Support enforcement of municipal codes addressing mosquito breeding habitats.

Municipal Responsibilities: In carrying out the intent of this memorandum, the municipality shall, within the limits of its capabilities:

- A. Adopt and enforce municipal ordinances which address vector/mosquito breeding habitats.
- B. Provide assistance for the notification of the public of spray events scheduled in the municipality.
- C. Provide for the publication of WNV/mosquito news and educational articles in municipal publications.
- D. Provide for the assistance of the local municipal police for any adult mosquito control events.

NPDES MUNICIPAL SEPARATE STORM SEWER SYSTEMS

Purpose Many municipalities in Dauphin County and the County itself are subject to NPDES permit requirements for Municipal Separate Storm Sewer Systems (MS4). The purpose of this agreement is to coordinate, where possible and desirable, the activities of the municipalities and the county associated with MS4 permit requirements. While not all requirements lend themselves to coordination, several of the requirements are such that coordination will result in decreased compliance cost and greater efficiency for both the municipality and county. The following details the municipal and District responsibilities by Minimum Control Measure (MCM)

MCM 1 - PUBLIC EDUCATION AND OUTREACH

<u>District Responsibilities</u> In carrying out the intent of this memorandum, the District shall, within the limits of its capabilities:

- A. Develop and Coordinate with all regulated municipalities the placement of an educational newspaper advertisement once per permit year.
- B. Distribute educational posters to all schools within the regulated municipalities once per permit year.
- C. Make educational posters available, at cost, to regulated municipalities for distribution to target audiences other than schools.
- D. Distribute an educational publication to developers in Dauphin County once per permit year.

- E. Maintain on the District website, information related to stormwater regulations, educational materials and resources. It is recommended that Municipalities provide a link from the municipal website, if available, to the District website.
- F. Annually, no later than 30 days after the end of the permit year, provide a summary to each regulated municipality of the above activities and any other educational activities conducted by the District that would be applicable for MS4 permit compliance. Where possible, copies of the educational materials, the dates distributed and a summary or list of those the material was distributed to will be included in the summary.

<u>Municipal Responsibilities</u> In carrying out the intent of this memorandum, the municipality shall, within the limits of its capabilities:

- A. Annually, no later than 30 days prior to the end of the permit year, provide a summary to the District of the use and or distribution of educational posters.
- B. Where practical and applicable, notify the District at least 15 calendar days in advance of municipal public outreach events where the District could play a role in providing public outreach.

MCM 2 – PUBLIC PARTICIPATION

<u>District Responsibilities:</u> In carrying out the intent of this memorandum, the District shall, within the limits of its capabilities:

A. Notify regulated municipalities of public participation events, as appropriate 30 days prior to the event.

<u>Municipal Responsibilities:</u> In carrying out the intent of this memorandum, the municipality shall, within the limits of its capabilities:

A. Notify the District of public participation events, as appropriate, at least 30 days prior to the event.

MCM 4 – CONSTRUCTION SITE STORMWATER MANAGEMENT

<u>District Responsibilities:</u> In carrying out the intent of this memorandum, the District shall, within the limits of its capabilities:

- A. Meet all of its responsibilities listed in the ESPC section of this MOU.
- B. Annually, no later than 30 days after the end of the permit year, provide a summary to each regulated municipality of District activities conducted in the municipality. The summary will include:

- 1. The number of sites inspected and the number of inspections conducted
- 2. The number of complaints received and the number of inspections conducted in response to complaints
- 3. The number of sites referred to DEP for enforcement
- 4. The number of permits issued

Municipal Responsibilities: In carrying out the intent of this memorandum, the municipality shall, within the limits of its capabilities:

- A. The municipality will meet all of its responsibilities listed in the ESPC section of this MOU.
- B. Retain all correspondence from the District including copies of inspection reports, permit authorizations, notices of violation, ESPC plan approvals and other correspondence needed by the municipality for MS4 documentation purposes.

GENERAL MS4

<u>District Responsibilities:</u> In carrying out the intent of this memorandum, the District shall, within the limits of its capabilities:

- A. Serve as a resource to regulated municipalities for general MS4 program information
- B. Provide copies of resource, regulatory, and educational materials. Limited amounts of such copies will be provided at no charge. For larger quantities, the District will provide copies in a format, where practical, suitable for producing copies or at cost.

<u>Municipal Responsibilities:</u> In carrying out the intent of this memorandum, the municipality shall, within the limits of its capabilities:

A. Provide copies of ordinances related to stormwater management, erosion and sediment control and illicit discharges. The municipality will provide the district with copies of any revised ordinances within 30 days of adoption.

EXECUTION

This Memorandum of Understanding shall become effective only after it has been adopted by vote of the governing bodies of both parties. Signatures must be those of a member of the governing body authorized to sign for the governing body.

This Memorandum of Understanding may be terminated by either party for any reason. Termination of this Memorandum of Understanding must be by certified mail. Termination shall become effective 30 days after receipt of the notice of termination.

This Memorandum of Understanding shall be reviewed periodically by either or both parties and may be amended by mutual consent of both parties.

With the execution of this Memorandum of Understanding any previous Memorandum of Understandings between the Municipality and the District shall be invalid.

DAUPHIN COUNTY CONSERVATION DISTRICT

By:	Ronald & Kogo
	, 100

Title: CHAIRMAN DCCD BOARD OF DIRECTORS

Date: 4-3-19

PAXTANG BOROUGH

By: Elenny Geaver

Title: Caunil Fresident

Date: February 18, 2014

Post-Construction Stormwater Management (PCSM) in New and Re-Development Paxtang Borough, Dauphin County

The Borough is relying upon PA DEP's statewide QLP (Qualifying Local Program) to satisfy all requirements under BMPs #1 through #3 of MCM #5; therefore, all requirements are met for BMPs #1 through #3 of MCM #5.

Through an executed Memorandum of Understanding (MOU), Paxtang Borough acknowledges the Dauphin County Conservation District's specific Erosion and Sediment Pollution Control responsibilities with regard to:

- Resources, Materials and Documents
- Plan Reviews and Permitting
- Inspections
- Notifications
- Municipal Assistance
- Meetings

The current 2014/2015 MOU is included as an appendix to the previous section (Construction Site Stormwater Runoff Control).

The requirements for BMPs #4 through #6 of MCM #5, as defined by PA DEP, and how the requirements are being (or are to be) addressed by Paxtang Borough are as follows:

- <u>BMP #4:</u> The permittee shall enact, implement, and enforce an ordinance or other regulatory mechanism to address post-construction stormwater runoff from new development and redevelopment projects, as well as sanctions and penalties associated with non-compliance, to the extent allowable under State or local law.
 - As documented in the PIPP, Paxtang Borough adopted a new Stormwater Management Ordinance (SWMO) on December 21, 2010. All activities identified in Section 105 of the SWMO fall under the authority of Borough Council to enforce this ordinance that addresses post-construction stormwater runoff.
- <u>BMP #5:</u> Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new and redevelopment. Measures also should be included to encourage retrofitting LID into existing development. DEP's *Pennsylvania Stormwater Best Management Practices Manual* provides guidance on implementing LID practices.
 - The Borough acknowledges the role that LID plays in accommodating an expanding population within the local and countywide growth management scheme. Section 301.E.3 of the SWMO states that "applicants are encouraged to incorporate the techniques for Low Impact Development Practices described in the 'Pennsylvania Stormwater Best Management Practices Manual (BMP Manual)' to reduce the costs of complying with the requirements of this Ordinance and the State Water Quality

Requirements." Additionally, Appendix B – Low Impact Development Practices of the SWMO describes alternative approaches for managing stormwater runoff.

<u>BMP #6:</u> Ensure adequate operation and maintenance of all post-construction stormwater management BMPs installed at all qualifying development or redevelopment projects (including those owned or operated by the permittee).

• The process of tracking and ensuring adequate operation of PCSM BMPs are institutional responsibilities that require coordination and procedure in order for the Borough to oversee. A monitoring program, to take the form of a BMP Inventory, is necessary to effectively manage the requirements of BMPs #4 through #6 of MCM #5. Over the next permit year (2015/2016), it is the Borough's intent to develop a single system that supports recording and tracking the information required in BMPs #4 through #6 of MCM #5.

Pollution Prevention/Good Housekeeping Plan (PPGHP) Paxtang Borough, Dauphin County

INTRODUCTION

Paxtang Borough's small Municipal Separate Storm Sewer System (MS4) collects stormwater runoff and manages the runoff through stormwater management facilities including, but not limited to, inlets, pipes, swales, and basins. Much of this runoff is ultimately discharged at various identified outfall locations to surface waters that include Spring Creek and an unnamed tributary to Spring Creek (Parkway Creek). The health and quality of these surface waters and waters downstream are directly impacted by stormwater runoff.

Paxtang Borough's MS4 coverage under the Commonwealth's General Permit (PAG-13), #133554, is valid from April 1, 2013 through March 31, 2018. Paxtang Borough is a renewal permittee as the previous permit covered activities from 2003. Annual reporting to the Pennsylvania Department of Environmental Protection (PA DEP) is required, since the entirety of the borough is located within the Chesapeake Bay watershed. The Borough will monitor the entire Stormwater Management Program (SWMP) and update as necessary, including the Good Housekeeping Operation & Maintenance Program targeting MCM #6. As part of the Borough's authorization to discharge waters from the MS4 to surface waters of the Commonwealth, there are specific requirements that include pollution prevention/good housekeeping for municipal operations in water quality improvement issues.

Appendix A of the MS4 General Permit contains the six Minimum Control Measures, or MCMs, required of Paxtang Borough under the Phase II NPDES Stormwater Regulations. Portions of these federal regulations are incorporated into Pennsylvania regulations, and within each MCM, Pennsylvania is requiring the implementation of several Best Management Practices (BMPs). Associated with each BMP are Measurable Goals defined by PA DEP to guide reporting and evaluation of the permittee's SWMP accomplishments. The requirements for MCM #6 are stated below:

MCM #6: Pollution Prevention/Good Housekeeping for Municipal Operations

- Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations (40 CFR Part 122.34(b)(6)(i)).
- Provide employee training to prevent and reduce stormwater pollution from activities such as parks and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance (40 CFR Part 122.34(b)(6)(i)).

BMP #1: Identify and document all facilities and activities that are owned or operated by the permittee and have the potential for generating stormwater runoff to the regulated small MS4. This includes activities conducted by contractors for the permittee. Activities may include the following: street sweeping; snow removal/deicing; inlet/outfall cleaning; lawn/grounds care; general storm sewer system inspections and maintenance/repairs; park and open space maintenance; municipal building

maintenance; new construction and land disturbances; right-of-way maintenance; vehicle operation, fueling, washing and maintenance; and material transfer operations, including leaf/yard debris pickup and disposal procedures. Facilities can include streets; roads; highways; parking lots and other large paved surfaces; maintenance and storage yards; waste transfer stations; parks; fleet or maintenance shops; wastewater treatment plants; stormwater conveyances (open and closed pipe); riparian buffers; and stormwater storage or treatment units (e.g., basins, infiltration/filtering structures, constructed wetlands, etc.).

<u>Measurable Goal:</u> By the end of the first year of permit coverage, new permittees shall identify and document all types of municipal operations, facilities and activities and land uses that may contribute to stormwater runoff within areas of municipal operations that discharge to the regulated small MS4. Renewal permittees should have completed this list during the previous permit term. For all permittees, this information shall be reviewed and updated each year of permit coverage, as needed. Part of this effort shall include maintaining a basic inventory of various municipal operations and facilities.

BMP #2: Develop, implement and maintain a written operation and maintenance (O&M) program for all municipal operations and facilities that could contribute to the discharge of pollutants from the regulated small MS4s, as identified under BMP #1. This program (or programs) shall address municipally owned stormwater collection or conveyance systems, but could include other areas (as identified under BMP #1). The O&M program(s) should stress pollution prevention and good housekeeping measures, contain site-specific information, and address the following areas:

- Maintenance practices, policies, procedures, etc. shall be developed and implemented to reduce
 or prevent the discharge of pollutants to your regulated small MS4s. You should consider
 eliminating maintenance-area discharges from floor drains and other drains if they have the
 potential to discharge to storm sewers.
- Maintenance activities, maintenance schedules, and inspection procedures to reduce the potential for pollutants to reach your regulated small MS4s. You also should review your procedures for maintaining your stormwater BMPs.
- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt / sand (anti-skid) storage locations and snow disposal areas.
- Procedures for the proper disposal of waste removed from your regulated small MS4s and your municipal operations, including dredge spoil, accumulated sediments, trash, household hazardous waste, used motor oil, and other debris.

<u>Measurable Goal:</u> During the first year of permit coverage, new permittees shall develop and implement a written O&M program that complies with BMPs #1 and #2. Renewal permittees shall continue to implement their existing program. All permittees shall review the O&M program annually, edit as necessary, and continue to implement during every year of permit coverage.

BMP #3: Develop and implement an employee training program that addresses appropriate topics to further the goal of preventing or reducing the discharge of pollutants from municipal operations to your regulated small MS4s. The program may be developed and implemented using guidance and training materials that are available from federal, state or local agencies, or other organizations. Any municipal employee or contractor shall receive training. This could include public works staff, building / zoning / code enforcement staff, engineering staff (on-site and contracted), administrative staff, elected officials, police and fire responders, volunteers, and contracted personnel. Training topics should include operation, inspection, maintenance and repair activities associated with any of the municipal operations / facilities identified under BMP #1. Training should cover all relevant parts of the permittee's overall stormwater management program that could affect municipal operations, such as illicit discharge detection and elimination, construction sites, and ordinance requirements.

<u>Measurable Goal:</u> During the first year of permit coverage, new permittees shall develop and implement a training program that identifies the training topics that will be covered, and what training methods and materials will be used. Renewal permittees shall continue to operate under their existing program. All permittees shall review the training program annually, edit it as necessary, and continue to implement it during every year of permit coverage.

<u>Measurable Goal:</u> Your employee training shall occur at least annually (i.e., during each permit coverage year) and shall be fully documented in writing and reported in your periodic reports. Documentation shall include the date(s) of the training, the names of attendees, the topics covered, and the training presenter(s).

GOOD HOUSEKEEPING OPERATION & MAINTENANCE PROGRAM (O&M PROGRAM)

The following Good Housekeeping Operation & Maintenance Program (O&M Program) has been authored by the Lancaster Inter-Municipal Committee (LIMC) and provided by the Capital Region Council of Governments (CapCOG) for use by Paxtang Borough. This O&M Program has been developed to satisfy requirements under MCM #6 and should be used as a "standalone" manual for the Paxtang Borough municipal staff.

THIS PAGE INTENTIONALLY LEFT BLANK

Good Housekeeping Operation & Maintenance Program

(O&M Program)

The Municipal Pollution Prevention/Good Housekeeping Plan (MS4 PPGHP)

Paxtang Borough, Dauphin County Municipality

January 8, 2016

CONTENTS

Section	1	
	1.1	Objectives
	1.2	Applicable Regulations
	1.3	O&M Program Modifications and Reviews
	1.4	Effective Permit
	1.5	O&M Program Preparation
Section	2	Purpose & Responsibilities
	2.1	O&M Program Overview
		2.1.1 Documentation
		2.1.2 Inspections
		2.1.3 Monitoring and Analytical Testing
		2.1.4 Training
	2.2	BMP Selection
Section	. 3	
Beetion	3.1	Geographic Boundaries
	5.1	3.1.1 Geographic Features
	3.2	Municipal Inventory
	3.3	Stormwater Collection and Conveyance System
Section	. 1	
Section	4.1	Best Management Practices (BMPs)
	7.1	4.1.1 Waste Disposal Plan
		4.1.2 Spill Response and Control Plan
	4.2	Program Goals
	4.3	Training and Education
	4.4	Inspections
	4.5	BMP Implementation and Maintenance Activities
	4.6	Events
	4.7	Measuring Effectiveness
		4.7.1 General Monitoring
		4.7.2 Field Monitoring
		4.7.3 Analytical Monitoring
	4.8	Other Operational Plans
	4.9	Annual Reports
	4.10	Other Considerations
ATTAC	CHMEN	ITS
	Attach	ment AQualified Personnel Reference(s)
	Attach	ment BMunicipal Inventory List
		ment CMunicipal Map(s)
	Attach	ment D RMP Selection Matrix

Attachment E	
Attachment F	BMP Implementation & Maintenance Schedule
Attachment G	Annual Training and Education Plan(s)
Attachment H	Training and Education Log
Attachment I	
Attachment J	Inspection, Event, and Activity Log
Attachment K	
Attachment L	Event Records
Attachment M	Activity Records
Attachment N	
Attachment O	Spill Response and Control Plan
Attachment P	Monitoring Log
Attachment Q	
Attachment R	Analytical Monitoring Map(s)
Attachment S	Pollutant Guidance Table
Attachment T	O&M Program Modifications
Attachment U	Annual Reports
Attachment V	Copy of Permit
Attachment W	List of Facilities with Separate NPDES Permits
Attachment X	<u> </u>
Attachment Y	
Attachment Z	
Attachment AA	
Attachment BB	

Section 1 Background & Introduction

The Good Housekeeping Operation and Maintenance Program (O&M Program) was developed to outline operational management and maintenance practices, policies, procedures, and protocols (or Best Management Practices ("BMPs")) for reducing and/or preventing pollutants associated with municipal facilities and activities from entering receiving waters as outlined and/or required by the National Pollutant Discharge Elimination System (NPDES) and an issued NPDES Small Municipal Separate Storm Sewer System (MS4) Permit (including PAG-13).

Compliance is a broad word with respect to an issued MS4 Permit and corresponding applicable laws and regulations such as Title 40 ("40 CFR") and 25 Pa. Code, which provide the basis of the permit. There are two primary categories for consideration for an MS4 Permit—documentation and program effectiveness. A program is built to effectively prevent or reduce pollutants from entering receiving waters via stormwater runoff or non-stormwater discharges to meet the requirements of an MS4 Permit. Documentation provides the specifics of the program; along with evidence the permitted entity is addressing not only the requirements of the MS4 Permit, but also the applicable laws and regulations.

The O&M Program specifically addresses the regulatory requirements outlined for municipal good housekeeping practices for operations and maintenance of facilities and activities, and is more commonly known as Minimum Control Measure Number Six ("MCM #6") in an issued MS4 Permit. An important aspect of the O&M Program is the training component as required by 40 CFR Part 122.34(b) (6) (i).

The O&M Program addresses, but is not limited to:

- municipal operations.
- the stormwater collection and conveyance system.
- facilities, activities, and land uses that have the potential to generate stormwater runoff.
- facilities, activities, and land uses that may contribute pollutants via stormwater runoff or nonstormwater discharges to receiving waters.
- pollution prevention and good housekeeping control measures for reducing or eliminating the discharge of pollutants from municipal facilities and activities through Best Management Practices (BMPs) including, but not limited to:
 - o practices and procedures.
 - o maintenance and inspection activities.
 - o assessing goals and effectiveness.
 - o training and education.

Section 4 of the O&M Program is the Operational Plan of the program. This section provides the specifics of activities, policies, procedures, and so on. The O&M Program as described in the contents section effectively becomes the MS4 Pollution Prevention/Good Housekeeping Plan ("MS4 PPGHP") for MCM #6 of an issued MS4 Permit.

1.1 **OBJECTIVES**

The O&M Program has four main objectives:

 Identify and document all municipal facilities and activities that may contribute pollutants to receiving waters via the regulated MS4 through stormwater runoff or a non-stormwater discharge.

- 2. Implement, maintain, and document all practices, controls, procedures, and so on for a group of selected BMPs aimed at reducing or preventing pollutants that may result from municipal facilities or activities.
- 3. Implement, maintain, and document an employee and contractor training program to improve the knowledge of employees and contractors for reducing or preventing pollutants that may result from municipal facilities or activities.
- 4. Identify and document all other activities, policies, and so on with a focus on pollution prevention and good housekeeping for municipal operations.

1.2 APPLICABLE REGULATIONS

Congress established the Federal Water Pollution Control Act in 1948. This law provides the foundation of current water quality and water pollution control regulations. In 1972, Congress passed an amendment to the original act known as the Clean Water Act ("CWA"). Section 301 of the CWA prohibits discharges to waters of the U.S. except with a permit. Also, the CWA authorized the NPDES in Section 402. The U.S. Environmental Protection Agency ("EPA") developed the NPDES through promulgation of regulations found in 40 CFR. The Commonwealth of Pennsylvania issues NPDES permits through an approved program following requirements that meet or exceed 40 CFR §123.

In 1987, Congress passed another amendment to the original Federal Water Pollution Control Act. The amendment is more commonly known as the Water Quality Act. This act specifically labeled stormwater as a "problem."

25 Pa. Code Chapter 92a incorporates 40 CFR into Pennsylvania code. Chapter 92a is more commonly known as the NPDES Permitting, Monitoring, and Compliance regulations. Additional chapters in 25 Pa. Code that affect municipal operations governed by an MS4 Permit include Chapter 93 (Water Quality Standards and Criteria), Chapter 96 (Water Quality Protection Requirements), and Chapter 105 (Waterway Management). Chapter 96 also outlines requirements associated with an issued Total Maximum Daily Load ("TMDL").

1.3 O&M PROGRAM MODIFICATIONS AND REVIEWS

From time-to-time, the language in the O&M Program or a reference for the program may be executed. Such modifications are noted and found in Attachment T of the O&M Program. Changes to the issued NPDES permit number will be noted and found in Attachment T as well.

The program, along with its components, will be reviewed annually by March 31st of each year. Components to be reviewed include, but are not limited to, the BMP Implementation and Maintenance Schedule and selected BMPs. Modifications or revisions to the O&M Program may occur during the annual reviews. Primary purposes of the review include:

- Ensuring selected BMPs and program information match actual municipal facilities and activities.
- Qualitatively measure effectiveness and goals of the overall program.
- Qualitatively measure effectiveness and goals of individual components of the program.
- Outline new goals for the program or components of the program.

The annual review will be noted with an Activity Record. Annual Reports will further reflect modifications to the O&M Program. Copies of the Annual Reports can be found in Attachment U.

1.4 EFFECTIVE PERMIT

The O&M Program is developed to address the requirements of MCM #6 in an issued NPDES MS4 Permit for the municipality.

Permit # PAG-133554 was issued to Paxtang Borough, Dauphin County. The effective date of this permit is April 1, 2013, and the permit expires March 31, 2018.

1.5 O&M PROGRAM PREPARATION

The O&M Program was prepared by:

Paxtang Borough 3423 Derry Street Harrisburg, PA 17111 (717) 564-4770

Section 2 Purpose & Responsibilities

Paxtang Borough, Dauphin County is a permitted entity under the Commonwealth of Pennsylvania Department of Environmental Protection National Pollutant Discharge Elimination System (NPDES) Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) Permit ("MS4 Permit"). Permitted entities are required to develop, implement, and maintain a written operation and maintenance program ("O&M Program") per Minimum Control Measure No. 6 ("MCM #6") as outlined in the MS4 Permit, and further described in applicable federal regulations. The ultimate purpose of the O&M Program is preventing or reducing polluted runoff from municipal operations and activities. The LIMC Municipal Operation and Maintenance Good Housekeeping Guidance & BMP Manual was used for the development of the O&M Program.

2.1 O&M PROGRAM OVERVIEW

The O&M Program lists procedures and practices (BMPs) to minimize pollution to receiving waters via stormwater runoff or non-stormwater discharges through direct discharge or the municipally owned and operated stormwater conveyance system in the regulated area. The O&M Program describes the facilities, activities, and land uses that have the potential to generate stormwater runoff along with polluting the runoff. Procedures and practices include, but are not limited to documentation, inspections, monitoring, and training.

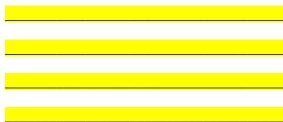
Development and implementation of an O&M Program based on the guidance within the LIMC Municipal Operation and Maintenance Good Housekeeping Guidance & BMP Manual and other relevant sources will aid a municipality in achieving compliance with the three BMPs under MCM #6 in Appendix A of the issued MS4 Permit (PAG-13) and applicable regulations such as follows:

- PAG-13/MCM #6 BMP #1: Identify and document all facilities and activities that are owned or operated by the permittee and have the potential for generating stormwater runoff to the regulated small MS4.
 - o The Municipal Inventory List in Attachment B provides a centralized location to identify and document such facilities and activities.
 - o The O&M Program will include a map in Attachment C outlining the regulated area of the municipality that can correspond to locations of municipal facilities and activities.
 - The O&M Program will include a map in Attachment C outlining land uses in the regulated area that may contribute to stormwater runoff within areas of municipal operations.
 - MEASURABLE GOAL: Development of the O&M Program components/attachments listed above by March 31, 2018 will help achieve this goal for Paxtang Borough.
- PAG-13/MCM #6 BMP #2: Develop, implement, and maintain a written operation and maintenance (O&M) program for all municipal operations and facilities that could contribute to the discharge of pollutants from the regulated small MS4s, etc.
 - The LIMC Municipal Operation and Maintenance Good Housekeeping Guidance & BMP Manual provides an O&M Program template and guidance for the development of an O&M Program.
 - o The BMP Selection Matrix in Attachment D and the placement of the BMP Fact Sheets in Attachment E provides a centralized location for information regarding management practices, management procedures, maintenance activities, inspection procedures, and so on.
 - o The BMP Implementation and Maintenance Schedule in Attachment F provides a location for maintenance schedules.

- o Inspection Records (Attachment K), Event Records (Attachment L), Activity Records (Attachment M), and the corresponding log (Attachment J) provides a centralized location for documentation pertaining to inspections and activities to reduce the potential for pollutants to reach the regulated small MS4.
- o The O&M Program calls for the insertion of the Waste Disposal Plan and Spill Response and Control Plan as attachments.
- o Analytical Monitoring is contemplated in the O&M Program to measure effectiveness of the program.
- MEASURABLE GOAL: Development of the O&M Program and items listed above by March 31, 2018 will help achieve this goal for Paxtang Borough.
- PAG-13/MCM #6 BMP #3: Develop and implement an employee training program
 - o The Annual Training and Education Plan is located in Attachment G.
 - o Training Records (Attachment I) and corresponding log (Attachment H) provides a centralize location of documented training activities.
 - o MEASURABLE GOAL(s): Implementation of the above items and as outlined in the O&M Program by March 31, 2018 will achieve the goals for Paxtang Borough.

2.1.1 DOCUMENTATION

All documentation relative to good housekeeping and pollution prevention referenced in the O&M Program or as applicable will be centralized into one location. Persons responsible for the implementation and maintenance of the O&M Program and corresponding activities and procedures of the BMPs outlined in the program are as follows:



Each person listed is qualified to manage and/or administer the activities and procedures outlined in the O&M Program. Documents establishing a qualified status can be found in Attachment A of the O&M Program.

Documentation guidance for selected and implemented BMPs can be found on the BMP Fact Sheets in Attachment E or clarified on the BMP Selection Matrix in Attachment D.

The responsible persons assume the following duties:

- Ensuring compliance with MCM #6 of the MS4 Permit and applicable laws and regulations as it pertains to pollution prevention and good housekeeping for municipal operations.
- Implementing elements of the MS4 PPGHP
- Inspections
- Documentation
- Correlating activities and procedures with other MS4 Permit requirements
- Administer the O&M Program of the MS4 PPGHP

in Section 4 of the O&M Program.

2.1.2 INSPECTIONS

Inspections will be conducted of municipal facilities and activities. Inspection protocols are further described in Section 4 of the O&M Program, the BMP Selection Matrix found in Attachment D, and the individual implemented BMPs found in Attachment E. Descriptions will include the frequency of regular inspections for individual BMPs implemented. Certain rain events will warrant inspections of certain BMPs outside of the normal regular inspection frequency. A defined rain event that will warrant an inspection of particular BMPs is as follows:

DEFINED RAIN EVENT: Greater than in. of rain in any given period o	of time.
A rain gauge can be found rainfall collected in the gauge will determine if the threshold for a defined rain event	. The measured has been met.
For any continuous rain event greater than 24 hours in duration, all BMPs identified finspections will be inspected. Rain event inspections will follow the defined rain event time, municipal personnel may inspect applicable BMPs prior to a significant and for	nt. From time-to-
The person(s) responsible for inspections of municipal activities and facilities, along BMPs outlined in this O&M Program are as follows:	with corresponding
2.1.3 MONITORING AND ANALYTICAL TESTING	
General monitoring is a continuous activity, and further described in Section 4 of the Analytical monitoring will be conducted periodically or as warranted. Such monitoring testing by qualified municipal employees or a qualified laboratory. Monitoring may be	ng may include field

From time to time, analytical testing of samples will be required. The following laboratories or similar type entity will conduct testing of samples:

determine the effectiveness of the program. Actual analytical monitoring protocols are further described

LABORATORY 1	LABORATORY 2 (if applicable)
Laboratory	
Address	Address
City, State, Zip	City, State, Zip
Contact	Contact
Contact Number	Contact Number

2.1.4 TRAINING

Training of employees and relevant contractors will be conducted for both general pollution prevention knowledge and implemented BMPs as it pertains to MCM #6 and good housekeeping. A training plan will be developed annually and is found in Attachment G. More information regarding employee and contractor training is found in Section 4 of the O&M Program.

is responsible for the annual development of the training and education plan.

2.2 BMP SELECTION

A primary purpose of the O&M Program is to document the selection, implementation, and maintenance of BMPs to meet the requirements of MCM #6 in an issued MS4 Permit and applicable federal and state regulations and laws.

The process for selecting, implementing, and maintaining BMPs is as follows:

- An inventory of municipal facilities and activities will be completed per Section 3 of the O&M Program
- BMPs corresponding to the inventory will be selected per Section 4 of the O&M Program.
 - o BMPs will be identified as either existing or proposed.
 - o A schedule of inspections, maintenance, and implementation of proposed BMPs (if applicable) will be completed and maintained per Section 4 of the O&M Program.
- Implemented BMPs will be reviewed periodically as further described in Section 4 of the O&M Program.

All BMPs are assigned measurable goals, along with possible measurements of effectiveness if applicable. Such goals and measurements are further described in Section 4. BMPs selected and implemented are further described in Attachment E.

Section 3 Description of Municipality

Understanding the boundaries, features, and facilities of a municipality aids with establishing a comprehensive and effective program. This section describes not only the geographic features of the municipality for consideration, but also the facilities and activities of the municipality.

3.1 GEOGRAPHIC BOUNDARIES

Geographic boundaries of Paxtang Borough, Dauphin County include the following:

EAST: Swatara Township, Dauphin County

NORTH: City of Harrisburg and Susquehanna Township, Dauphin County

WEST: City of Harrisburg

SOUTH: Swatara Township, Dauphin County

A map of the municipality can be found in Attachment C revealing these geographic boundaries.

3.1.1 GEOGRAPHIC FEATURES

Other geographic features of note within the municipality include:

- 1. Capital Area Greenbelt
- 2. Paxtang Cemetery
- 3. Unnamed Tributary to Spring Creek (Parkway Creek)

These features affect municipal facilities and activities. BMPs implemented and maintained respect the aspects of these features. These features are also shown on the map of the municipality found in Attachment C.

3.2 MUNICIPAL INVENTORY

The municipality owns or operates facilities and conducts certain activities. These facilities and activities, along with certain land uses, either have the potential to generate stormwater runoff or contribute pollutants to stormwater runoff. Certain facilities and activities may contribute pollutants directly through contact with stormwater runoff or non-stormwater discharges.

A complete list of all municipal facilities, activities, and land uses can be found on the Municipal Inventory List found in Attachment B. The list will be reviewed annually for accuracy or needed modifications by a responsible person listed in Section 2 by March 31st of each year. An Activity Record will be completed and logged for this action to document the annual review. Activity Records can be found in Attachment M with the corresponding log in Attachment J.

A primary facility of the municipality is the municipal yard. A number of facilities and activities are located or conducted within the boundaries of the yard. Attachment C contains a layout of the municipal yard identifying the facilities and activities within the boundaries of the yard. A map showing the locations of all municipal facilities, activities, and relevant land uses is also found in Attachment C.

Certain municipal facilities and activities require separate NPDES Permits. The Municipal Inventory List may indicate as such. A list of municipally owned or operated facilities with separate NPDES Permits is found in Attachment W.

3.3 STORMWATER COLLECTION AND CONVEYANCE SYSTEM

Certain structural and natural components within the municipality collect and convey stormwater to receiving waters. Such components include pipes, curbs, ditches, basins, and inlets that are municipally owned. A goal of the municipality is to prevent or reduce polluted stormwater in the entire collection and conveyance system. However, the issued MS4 Permit provides focus to an established regulated area. A map revealing the regulated area and corresponding components of the collection and conveyance system within the regulated area is found in Attachment C.

The stormwater collection and conveyance system in the regulated area drains to the following waters:

Spring Creek

Unnamed Tributary to Spring Creek (Parkway Creek)

The map in Attachment C also indicates the locations of municipal facilities and activities within the regulated area.

BMPs addressing components of the collection and conveyance system are further described in Section 4, along with the practices aimed at reducing or preventing polluted discharges from municipal facilities and activities from entering the regulated MS4 and/or collection and conveyance system.

Section 4 Operational Plan

The Operational Plan outlines the specific practices, controls, procedures, and so on aimed at reducing or eliminating the discharge of pollutants from streets, roads, municipal facilities, municipal activities, storage areas, and any other municipally owned facility or activity as identified in Section 3 and the corresponding Municipal Inventory List. The Operational Plan also addresses training and education of municipal employees and contractors for the specific practices, controls, procedures, and so on identified.

4.1 BEST MANAGEMENT PRACTICES (BMPs)

Based on the Municipal Inventory List found in Attachment B, a set of BMPs have been selected. The selected BMPs are primarily source-control BMPs with a goal to reduce or prevent the discharge of pollutants. The BMPs selected can be found in the BMP Selection Matrix in Attachment D. The BMPs selected are as follows:

The objectives, protocols/practices (including operations and maintenance), inspection procedures, and documentation procedures of selected BMPs can be found within the individual BMP Fact Sheets located in Attachment E or noted in the BMP Selection Matrix. The BMP Selection Matrix also provides relevant goals for individual BMPs selected, along with a measurement of effectiveness if applicable. Goals, or milestones, of selected BMPs (including implementation (if applicable) and maintenance practices) will be outlined in a schedule format. The BMP Implementation and Maintenance Schedule can be found in Attachment F.

The BMP Selection Matrix and corresponding fact sheets of selected BMPs will be reviewed annually by March 31st of each year. Effectiveness, established milestones/goals, and practices will be reviewed. An Activity Record will be completed and logged for this action. Along with this action, the BMP Implementation and Maintenance Schedule will be reviewed and updated to note any changes in the annual review.

Primary goals for BMPs identified in the	e BMP Selection Matrix	are as follows:	
4.1.1 WASTE DISPOSAL PLAN			
Along with the selection of BMP GH-7, addressing collection and disposal of wa activities is found in Attachment N. The accumulated sediments, trash, hazardous	aste removed from the reg Plan addresses disposal	gulated MS4 and as of wastes such as di	a result of municipal redge spoil,
Primary considerations in the Waste Dis	sposal Plan include, but a	re not limited to:	
<u> </u>			·

4.1.2 SPILL RESPONSE AND CONTROL PLAN

Along with the selection of BMP GH-10, Spill Prevention and Control, the Spill Response and Control Plan addressing spills that may pollute stormwater runoff or contribute pollutants directly to receiving waters via the regulated MS4 is found in Attachment O. The plan outlines such items as spill control materials and responsibilities.

Primary considerations outlined in the Spill Response and Control Plan includes, but is not limited to:	
<u> </u>	
4.2 PROGRAM GOALS	
Goals have been identified and established for the facilitation of the O&M Program. Milestones associated with the goals can be found on the BMP Implementation and Maintenance Schedule as wel Goals may be modified, changed, or added during annual reviews. Such modifications will be noted at found in Attachment T. Initial goals associated with the program or components of the program are as follows:	
1.	
2.	
3.	
4. <u> </u>	
5.	
4.3 TRAINING AND EDUCATION	
An annual training plan will be developed by of ear year. The topics of focus in the training plan are based on selected BMPs or any items relative to stormwater and water quality deemed necessary. The Annual Training and Education Plan can be four in Attachment G. Training is provided to municipal employees and contractors by the following method but not limited to:	ıd
• Formal or informal • "Toil gote" training	

- "Tail-gate" training
- On-site
- Classroom or similar

Training is conducted by appropriate and qualified persons, including those persons listed as responsible persons in Section 2.

Training Records will be completed and logged documenting training completed, and will include information such as the date of training, location of training, instructor(s)/presenter(s), and topics reviewed. Training Records can be found in Attachment I. A log of the records providing a summary overview can be found in Attachment H. Records will be completed for training activities outlined in the Annual Training Plan and for non-planned activities.

4.4 INSPECTIONS

Inspections of facilities and activities as outlined in selected BMPs will be conducted by responsible persons listed in Section 2. Inspection Records are located in Attachment K. The corresponding log providing a summary of inspections is located in Attachment J.

Inspections will be conducted on a regular basis and based on the selected BMP for a particular facility or activity. The frequency of inspections for individual BMPs can be found on The BMP Selection Matrix in Attachment D. Most BMPs will follow a regular inspection frequency of

Inspections will include, but are not limited to the following:

- Comparison of observed facility or activity against the selected practices.
- A note if maintenance or repairs are needed.
- A note if a spill, leak or discharge was observed.
- Any concerns that need addressed.
- Any follow-up activities that may be required such as training or spill control.

Monitoring will be conducted along with inspections to ensure an effective program. More information is provided in Section 4.7 below.

4.5 BMP IMPLEMENTATION AND MAINTENANCE ACTIVITES

Any activities associated with implementing or maintaining a BMP for a municipal operation or facility will be documented on an Activity Record. Activity Records are located in Attachment M. A corresponding log of activities is located in Attachment J.

Activities include repairs to a facility or activity, street sweeping, waste transport, modifying a facility or activity to reflect a BMP, illicit connection investigation, and so on. Individual BMP fact sheets located in Attachment E provide guidance for activities to be documented.

Scheduled implementation and maintenance activities can be found on the BMP Implementation and Maintenance Schedule found in Attachment F.

4.6 EVENTS

Significant events are recorded on Event Records. Event Records are located in Attachment L. A corresponding log of events is located in Attachment J.

Events that are recorded include major rain events and illicit discharges.

4.7 MEASURING EFFECTIVENESS

The BMP Selection Matrix located in Attachment D provides for the development of measuring the effectiveness of the individual BMP for a facility or activity. The primary measurement of effectiveness is ensuring proper execution of practices and protocols outlined in the O&M Program (and specifically the

and maintenance of BMPs.

Other measurements of effectiveness for select BMPs include the following: BMP(s) Measurement(s) Additional clarifications regarding the above listed measurements include: 4.7.1 **GENERAL MONITORING** General monitoring entails frequent observations of municipal activities and facilities outside the normal inspection schedule. Municipal employees and contractors will observe potential polluting conditions (e.g. leaks, discharges, and so on) during normal operations. 4.7.2 FIELD MONITORING Field monitoring entails documented observations of selected municipal facilities and activities. Field monitoring may include sample acquisition by qualified municipal employees or contractors. Most samples acquired will be tested with a field test kit. The kit used by the municipality is: If applicable, the kit will be used to test the following potential pollutants:

selected BMPs) through adequate documentation and review of documentation reflecting implementation

The Pollutant Guidance Table found in Attachment S provides guidelines for observations and testing of samples. The table will provide analytical guidelines as applicable.

A Monitoring Report will be completed for field monitoring. Reports can be found in Attachment Q. All reports completed will be entered on a summary log found in Attachment P. Locations of field monitoring conducted are further identified on the Analytical Monitoring Map found in Attachment R.

The persons qualified to obtain samples via field monitoring is as follows:

There is no overarching frequency identified for field monitoring. Field monitoring will be conducted as needed or as identified as a measurement of effectiveness for selected BMPs.

4.7.3 ANALYTICAL MONITORING

From time to time, analytical monitoring and testing will be conducted to measure the quality of waters within the municipality and within the regulated area to ensure selected practices and protocols for good housekeeping are effective. Analytical monitoring may also include sample acquisition at other locations in the regulated area of the MS4, such as the municipal yard or at an inlet. Monitoring Reports (Attachment Q) and a corresponding log (Attachment P) outline analytical monitoring activities. An Analytical Monitoring Map is located in Attachment R that outlines locations of monitoring activities and sample acquisition.

Analytical monitoring will be conducted by a laboratory listed in Section 2. Sample acquisition may be completed by qualified municipal personnel, contractors, or the laboratory. The monitoring report will note the person acquiring the sample, along with proper chain of custody forms and other relevant information to ensure quality control.

There is no overarching frequency identified for analytical monitoring. Analytical monitoring will be conducted as needed, and for potential pollutants as deemed appropriate to test for, or as identified as a measurement of effectiveness for selected BMPs.

4.8 OTHER OPERATIONAL PLANS

Facilities requiring separate NPDES Permits, and found in Attachment W, have separate operational plans. The operational plans of these facilities are correlated with this O&M Program. The plans are also attached to this program for reference and can be found in the following locations:

4.9 ANNUAL REPORTS

All activities and items associated with the O&M Program including modifications, training endeavors, goals, etc. will be summarized in Annual Reports. Copies of the Annual Reports can be found in Attachment U. The person(s) responsible for Annual Reports are as follows:

Keldeen Stambaugh, Borough Manager 3423 Derry Street Harrisburg, PA 17111 (717) 564-4770

Max Shradley, Borough Engineer RETTEW Associates, Inc. 5031 Richard Lane, Suite 111 Mechanicsburg, PA 17055 (800) 738-8395

4.10 OTHER CONSIDERATIONS

Other considerations for the proper administration of the O&M Program include:	